

The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1755.—VOL. XXXIX.

LONDON, SATURDAY, APRIL 10, 1869.

(STAMPED .. SIXPENCE,
UNSTAMPED .. FIVEPENCE)

MR. JAMES CROFTS, STOCK AND SHAREBROKER,
No. 1, FINCH LANE, CORNHILL.
(Established 1842.)

Mr. Crofts transacts business in the way of PURCHASE or SALE of every description of stocks, but particularly BRITISH MINES, at net prices. All orders meet with the utmost punctuality, and advice given as to the nature and eligibility of INVESTMENTS when required.

Tin has risen again this week £6 a ton, which makes the advance within the last five weeks £23, and it is expected to rise yet higher. At the GREAT ROYALTON TIN MINE (Roch, Cornwall), in 4096 shares, 4 tons of tin will be raised per month, at a total cost of £30 per ton. Black tin is now over £80, which will give a profit of upwards of £50 on every ton raised. The shares have risen to 12s. 6d., and they must shortly rise to at least double or treble this price. The mine is situated at the head of the celebrated Goss Moors, from which millions worth of tin has been raised. Capt. Parkyn, the agent, writes:—"The more I look into this valuable property the better I am pleased with it, and a great deal more than 4 tons of tin a month will be raised in a short time—when the shaft is down. The fact is, these lodes are the best work for tin I ever saw in all my experience, and cannot fail in yielding immense returns and profits. We have five lodes in the sett. The new lode, or what I call the great north lode, which I discovered since I saw you, is 6 ft. wide, containing splendid rich tin. It is the best property I ever saw."

Capt. Parkyn's report will be found in its place in this day's Journal.

MR. JOHN BUMPUS, 44, THREADNEEDLE STREET,
has FOR SALE the following shares, free of commission:—

100 Anglo-Brazilian, 9s 9	20 Frank Mills, £33½	50 South Herodfoot, 22s
20 Bryn Gwlog, 10s	70 Gen. Brazilian, 13s 6d	35 South Condurrow, 33s
25 Brynpostig, 35s. 6d.	10 Great Laxey, £19½	100 Sao Vicente, 6s. 9d.
55 Carn Camborne, 11s	10 Great Vor, £17½	100 Taquaril, 12s
100 Chontales, 28s.	25 Gt. No. Laxey, 28s 6d	5 Wh. Mary Ann, £17½
50 Don Pedro, £33½ pm.	15 Marke Valley, £29½	50 West Drake Walls, 5s
75 Drake Walls, 23s.	25 New Lovell, £23½	50 West Godolphin, 35s.
50 East Grenville, £23½	50 No. Treskerby, 18s 6d	50 Wt. Chiverton, £51½
15 East Caradon, £7½	10 No. Levant, £10½	5 W. Rose Down, £17½
50 East Rosewarne, 7s.	50 Prince of Wales, 23s 9	20 Wheel Grenville, 55s.
25 East Lovell, £9½	75 Pestarena, £11½	35 West Basset, £2½
50 E. Carn Brea, 10s.	50 Rossa Grande, 24s. 3d	20 Wheel Uny, £37½
100 Frontino, 19s. 9d.	10 South Darren, 38s.	50 Yudanumutana, 31s 3

MR. WILLIAM WARD,
STOCK AND SHAREDEALER,
No. 29, THREADNEEDLE STREET, LONDON, E.C.

MR. THOMAS SPARGO, STOCK AND SHAREDEALER,
224 & 225, GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C.

JOHN RISLEY, (SWORN) STOCK AND SHAREBROKER,
48, THREADNEEDLE STREET, LONDON, E.C.
Bankers: London and Westminster, Lothbury.

MR. THOMAS THOMPSON, MINING OFFICES,
12, OLD JEWRY CHAMBERS, LONDON, E.C.

MR. JAMES HUME, STOCK AND SHAREDEALER,
74, OLD BROAD STREET, LONDON, E.C.

Has BUSINESS in—
20 Chiverton, £23½
5 Wt. Chiverton, £51½
50 Prince of Wales, 23s 9
10 Great Vor, £17½
50 Chontales, 28s.
20 North Treskerby, 18s.
50 West Frances, £57.
5 Buller, £19.
20 Uny, £11s.
50 Don Pedro, £23½
20 East Grenville, £23½
20 West Drake Walls, 5s
20 New Lovell, 52s.
Bankers: The London Joint-Stock Bank.

MR. J. H. COCK, STOCK AND MINING SHAREDEALER,
74, OLD BROAD STREET, LONDON, E.C.
Fifteen years' experience in Cornwall and London.

Business transacted in all the leading market mines, also in those requiring negotiation.

J. H. C. has visited Cornwall last week, is, from his sources of information, prepared to advise his clients what they should buy, sell, or avoid. SPECIAL IN THE GREAT NORTHERN MANGANESE COMPANY (LIMITED), also in Boscan, New Lovell, Wheal Owles, South Condurrow, East Carn Brea, North Levant, and Ding Dong.

MR. T. ROSEWARNE, 81, OLD BROAD STREET,
LONDON, E.C.

T. R. has BUSINESS in the following mines, at close market prices:—
Chiverton, East Caradon, West Chiverton,
Devon Consols, Marke Valley, West Drake Walls,
East Basset, Prince of Wales, Wheal Seton.

WHEAL BULLER shares should be bought, even at present prices; also, Bedford Consols, Bedford United, Chiverton Moor, East Caradon, and Tincroft. I can advise the purchase of several mines which are safe for a great rise during the next nine months, and not high-priced shares; the chances are that for £10 investors may realise £100; as if the machinery on the mines were sold to-morrow, it is worth nearly the money the shares are now selling at. I shall be glad to inform any parties who may call at my office from the hours of 10 to 4 the mines I have selected and their chances of success, as metals are likely to rise higher.

T. R. should be consulted immediately respecting Wheal Grenville, East Grenville, Chontales, and Don Pedro.

Money advanced to any extent on good mining shares.
Office hours Ten to Four. Bankers: Bank of England.

MR. E. J. BARTLETT, STOCK AND SHAREDEALER,
No. 30, GREAT ST. HELEN'S, LONDON, E.C., has SPECIAL BUSINESS

in West Godolphin, Summer Hill, North Pool, South Condurrow, South Merilyn, New Lovell, North Levant, Bryn Gwlog, East Rosewarne, East Lovell, Spearne Moor, East Carn Brea, North Treskerby, Wheal Agar, Caldbek Fells, Great North Laxey, and South Darren.

BUYER of Spearn Moor, West Godolphin, and Great South Chiverton.

Holders of Stock divided of sale in the open market may find purchasers on application to the above.

* SOUTH MERILYN.—See report published this day in these columns.

MR. PIKE, from a long residence in the centre of the mining districts, with 17 years' experience in the London Mining Market, is
ENABLED TO GIVE THE SOUNDTEST AND MOST DISINTERESTED OPINION
as to the intrinsic merits of every market mine.

Mr. PIKE has recently recommended several mines which have advanced from 50 to 100 per cent.; and many mines, from the improvement in the price of tin, which was only realising £35 per ton, is now making £75 per ton, must become very valuable. Investors would, therefore, find it to their advantage not to delay in obtaining Mr. PIKE'S advice.

SPECIAL REPORTS may be had of Uny, Cook's Kitchen, West Frances, South Condurrow, West Basset, East Grenville, Great Vor, New Lovell, East Wheal Beeth, and the Blue Hill Mine. Also, Great South Tolgus.

3, Crown Chambers, Threadneedle-street, London, E.C.

MR. WILLIAM MARLBOROUGH, 1, GREAT ST. HELEN'S,
BISHOPSGATE STREET, LONDON, E.C. (Established 14 years), has

FOR SALE the FOLLOWING SHARES, at net prices:—
50 Anglo-Brazilian, 9s 9d
20 Brynpostig, 35s. 6d.
25 Bedford Cons., 13s. 9d.
20 Don Pedro, £33½ pm
30 Drake Walls, 23s. 9d.
40 Chontales, 28s. 6d.
50 Chiverton, £23½
2 Cwm Darren, £25.
10 East Caradon, £7½
15 E. Grenville, £23½
25 East Lovell, £9½
15 Gt. So. Tolgus, 28s 9d

25 E. Carn Brea, 10s. 3d.
50 Gen. Braz., 4s 4d pm.
5 Great Vor, £17½ 6d.
20 Gt. No. Laxey, 28s. 6d.
15 New Lovell, £23½
10 No. Levant, £10½
30 North Crofty, 22s. 3d.
20 No. Treskerby, 18s 6d.
20 Pestarena, 23s. 9d.
30 Prince of Wales, 23s 9d
50 Princess of Wales, 23s 9d
50 Redmoor, 6s.

15 Rosewall Hill, 32s 3d
35 So. Condurrow, 31s 9d
25 St. John del Rey, £17½
50 South Merilyn, 18s 9d
5 Tincroft, £19½
50 Tamar Valley, 13s 9d
50 Taquaril, 4s. 3d. pm.
50 West Chiverton, £51½
25 West Basset, 41s. 3d.
15 West Godolphin, 35s.
25 Wheel Crebor, 10s. 3d
20 Wheel Uny, £37½ 3d

MR. GEORGE BUDGE, STOCK AND SHAREDEALER,
No. 4, ROYAL EXCHANGE BUILDINGS, LONDON, E.C. (Established

20 years), is a SELLER at net prices of:—
100 Great South Chiverton; 30 Drake Walls, 23s. 9d.; 50 Great South Tolgus, 28s. 6d.;
100 Gwydyr Park, 4s.; 75 Redmoor, 6s. 6d.; 5 Polberron; 3 Wheal Seton, £17½;
50 South Condurrow, 31s.; 110 Lovell Consols, 16s. 3d.; 30 East Grenville, £23½;
£5 13s. 9d.; 65 Tamar Valley, 13s. 9d.; 115 Bedford Consols, 13s. 9d.; 35 Prince of Wales, 23s. 9d.; 50 North Jane, 12s. 6d.; 30 Colquhite and Callington, £23½;
10 Mace-y-Safu, £20; 30 Prosper United; 5 Tincroft, £20; 4 West Chiverton, £51½;
100 South Grenville, 6s. 9d.; 15 North Treskerby, 18s. 9d.; 55 North Downs, 11s. 9d.; 60 West Basset, 42s.; 5 West Caradon, £23½; Wheal Mary Florence, 20s.;
200 Taquaril; 75 General Brazilian; 120 Frontino and Bolivia, 19s.; 120 Anglo-Brazilian.

SPECIAL BUSINESS in the Van Mine and Tin Valley.

G R E A T W H E A L V O R .—
Under this head, in my advertisement in the Mining Journal of 13th February, 1869, when shares were at £12, I stated that my "Weekly Mining Circular and Share List" of the day previous (12th February) contained Important Information respecting the Prospects of this Mine, and as to the Present and Future Profits, &c. I strongly recommended an immediate purchase of the shares, as the Dividends would likely be increased, and the shares have a great rise.

Since this appeared shares have gradually risen to £20.

My "Weekly Mining Circular and Share List," of yesterday (9th April), contains some further Important Information on the Mine, and I still strongly recommend an immediate purchase of the shares, as they are likely soon to have a further considerable rise, if they do not even double their present price.

PETER WATSON, STOCK AND SHAREDEALER,
79, OLD BROAD STREET, LONDON.

CORNISH AND FOREIGN MINES—
TO SHAREHOLDERS AND OTHERS.

PETER WATSON'S "WEEKLY MINING CIRCULAR AND SHARE LIST—SYNOPSIS OF CORNISH AND DEVON MINES," of Friday, April 9, No. 527, Vol. XI., price 6d. each copy, forwarded on application, contains information on the following mines:—

Wheal Jane.	Wheal Mary Ann.	Great Western.
Wheal Margaret.	Herodfoot.	New Wheal Lovell.
Trumpet Consols.	Cwm Erlin.	Chiverton.
St. Ives Consols.	Foxdale.	Minera.
Providence.	Ding Dong.	Cwmystwith.
Tincroft.	East Lovell.	East Darren.
South Great Work.	Ballalack.	West Chiverton.
Drako Walls.	West Frances.	Great Laxey.
West Caradon.	Welcoath.	The Van.
Lisburne.	West Great Work.	

With a Special Notice on Great Wheal Vor, and full particulars of the Great Rook Lead Mine. Prospectuses of this company, with forms of application and reports, will be ready early next week, and may be had on application.

INVESTMENT OR SPECULATION.—A SELECTED LIST OF
RAILWAYS, BANKS, MINES, COLONIAL SECURITIES, FOREIGN GOVERNMENT BONDS, &c., forwarded to bona fide investors on application, in addition to the high rate of interest many of the above are paying, there is now every probability of a great rise in market value.

PETER WATSON, STOCK AND SHAREDEALER,
79, OLD BROAD STREET, LONDON

(three doors only from Hercules passage, entrance to the Stock Exchange).

(Twenty-four years' experience.)

(Two in Cornwall and Twenty-two in London.)

Bankers: The Alliance Bank, and the Union Bank of London.

References given and required (when necessary) in all the principal towns of the United Kingdom.

THE LONDON DAILY RECORD—STOCK AND SHARE
LIST—STOCK EXCHANGE SECURITIES. Published every evening at 5 o'clock. It contains the latest prices of railways, banks, mines, foreign stocks and bonds, financial, insurance, and miscellaneous shares, remarks on the daily rise and fall in prices, with advice as to purchase and sales. Annual subscription, £1 s.; by post, £2 s.; monthly subscription, by post, 4s.; single copy, 1d.; by post, 2d.

PETER WATSON, Stock and Sharedealer, 79, Old Broad-street, London.

MR. EDWARD COOKE,
STOCK AND MINING SHAREDEALER, 76, OLD BROAD STREET

(and Mining Exchange), LONDON, E.C.

Shares in all the dividend and best progressive British mines dealt in. The prospectus of the Great Rook Lead Mine to be had on application.

References given.

Price-list sent free on application.

Bankers: Alliance Bank.

MR. W. H. CUEL,
No. 42, CORNHILL, LONDON, E.C.

MR. J. B. REYNOLDS, STOCK AND SHAREDEALER,
ETHELBURGA HOUSE, BISHOPSGATE STREET WITHIN, E.C.

Established Eleven Years.
Bankers: City Bank, London, E.C.

MR. JOHN MOSS, STOCK AND SHAREDEALER,
ST. MICHAEL'S CHAMBERS, 42, CORNHILL, E.C.

Business as BUYER or SELLER in Frontino, Chontales, Don Pedro, General Brazilian, and Taquaril Gold shares.

Bankers: City Bank, Finch-lane, E.C.

MR. WILLIAM SEWARD, STOCK AND MINING SHARE
BROKER, 19, THROGMORTON STREET, LONDON, E.C.

Every description of shares BOUGHT and SOLD at the best market prices.

MATTHEW GREENE, STOCK AND SHAREDEALER,
14, PINNER'S HALL, OLD BROAD STREET, LONDON, E.C.

BUYS and SELLS Consols, Railway and Mining Shares at the closest market prices. Daily Price Lists on application.

HORRIDGE CONSOLS.—Mr. GREENE recommends immediate applications for shares in this highly-promising tin mine. A limited number of shares can be secured on application to Mr. GREENE.

VAN MINE AND DISTRICT.—M. G. is in a position to give reliable information, having conducted for years past mining operations in this rich lead-bearing country.

WHEAL ARGENT SILVER AND COPPER MINE, in 6400 shares.—M. G. has FOR SALE a limited number of shares. This mine has made a profit of 60 per cent. on the last eight months' working, and during the last month has wonderfully improved. Capt. Gifford, the manager of Prince of Wales, in his report of the latter mine (see Mining Journal of the 13th inst., page 186) says—"I have, in company with my son, been over the south part of your sett on the silver lode, from which at the neighbouring mine, South Prince of Wales (Wheal Argent), was raised and sold during the last three months £400 worth of silver, at a cost not exceeding £50."

TAMAR VALLEY SILVER-LEAD and NEW CLIFFORD COPPER MINES are both looking well. See reports in this day's Journal.

Established Twelve Years.—Twenty-four Years' Experience.

MR. F. W. MANSELL, 44, THREADNEEDLE STREET,
LONDON, has the following SHARES FOR SALE, for cash or account, at net prices:—

20 Chiverton, £23½	150 Gen. Brazilian, 6s pm	100 Redmoor, 6s.
15 Cook's Kitchen, £17½	15 Marke Valley, £29½	50 So. Condurrow, 31s. 9
50 Drake Walls, 23s. 9d.	75 New Lovell, £23½ 9d	150 Tamar Valley, 13s. 6d
50 East Caradon, £7½	20 North Down, (call paid)	
10 East Lovell, £9½	60 North Crofty, £2½	3 Wt. Chiverton, £51½
50 Great Vor, £17½	60 No. Treskerby, 18s. 6d	135 Chontales, £1 10s. 9d.
20 Gt. Laxey, £19½	100 Prince of Wales, 23s 9	100 Anglo-Argent, 20s 6

Shares may be bought for future payment. Every facility afforded.

SOUTH CONDURROW.—No time should be lost in the purchase of these shares. Every information may be had on application.

Bankers: London Joint Stock Bank.

INVESTMENT, LOAN, AND BANK AGENCY.
Established 1839.

Every information afforded to Capitalists, Trustees, and others who seek Investments of a strictly eligible and safe character.

Investments may be effected in Foreign Stocks, Colonial Bonds, Railway, Mine, and other Shares, subject to quarterly, half-yearly, or annual payments, upon advantageous terms.

LOANS granted, for one year or any shorter period, on Stocks and Shares having a market value.

Five per cent. interest allowed upon DEPOSITS of all amounts.

Money and Finance Agency Business generally undertaken.

RICHARD TAYLOR AND COMPANY.
No. 12, Clement's-lane, Lombard-street, London, E.C.

GOLD AND SILVER MINING SHARES.—
RICHARD TAYLOR AND COMPANY are DEALERS in the FOLLOWING SHARES at close market prices, free of commission, either for cash or time on—

ANGLO-ARGENTINE.	FRONTINO AND BOLIVIA.	ROSSA GRANDE.
ANGLO-BRAZILIAN.	GENERAL BRAZILIAN.	SAO VICENTE.
CHONTALES.	PESTARENA.	ST. JOHN DEL REY.
DON PEDRO.	PORT PHILLIP.	TAQUARIL.

Investment, Loan and Bank Agency.
No. 12, Clement's-lane, Lombard-street, London, E.C.

MR. T. P. THOMAS, MINING AGENT,
77, OLD BROAD STREET, LONDON.

Lead mining in the Counties of Cardigan and Montgomery has lately been very successful, and likely to continue so.

T. P. THOMAS, having a thorough knowledge of these districts, is at all times prepared to make SELECTIONS for Investors.

T. P. THOMAS having secured a very valuable mineral property in Cardigan-shire, which he can confidently recommend, is prepared to receive applications from respectable parties disposed to join in working the same. Further particulars to be had upon application.

The ore being already discovered, and sufficient to make immediate and permanent returns, no public prospectus will be advertised.

MR. CHARLES THOMAS,
MINING AGENT, GENERAL SHAREDEALER, AND AUCTIONEER,
3, GREAT ST. HELEN'S, LONDON, E.C.

Third Edition, price One Shilling; post-free, fourteen stamps.

MINING FIELDS OF THE WEST:
A PRACTICAL EXPOSITION OF THE

PRINCIPAL MINES AND MINING DISTRICTS OF CORNWALL AND DEVON.
Published by CHARLES THOMAS,
At No. 3, Great St. Helen's, London, E.C.

DIVIDENDS 10 to 20 PER CENT.—
For Safe and Profitable Investments.

Read SHARP'S INVESTMENT CIRCULAR (post free).

The April number now ready.

It contains all the best paying and safest Stock and Share Investments of the day.

CAPITALISTS, SHAREHOLDERS, INVESTORS
Will find the above Investment Circular a safe, valuable, and reliable guide.

Safe Investments in—
ENGLISH RAILWAYS.
FOREIGN RAILWAYS.
COLONIAL SECURITIES.
RAILWAY DEBENTURES, &c.
BANK SHARES.

Safe Investments in—
AMERICAN SECURITIES.
INSURANCE SHARES.
FOREIGN LOANS, BONDS, &c.
BRITISH AND FOREIGN MINES.
MISCELLANEOUS SHARES, &c.

Stocks and Shares of every description bought and sold at the closest market prices net.

GRANVILLE SHARP AND CO., Stock and Share Brokers.
Offices, 32, Poultry, London, E.C. Established 1852.

SPECIAL BUSINESS in the following mines:—
Trumpet Consols. Wheal Jane. New Seton.
East Trumpet. North Jane. Nangiles.

Bankers: London and Westminster, Lothbury, London, E.C.

MR. W. H. LANYON,
(Late of Kennall Gunpowder Company)

GUNPOWDER MERCHANT,
TRURO.

BARTLETT AND CHAPMAN, STOCK AND
SHAREDEALERS.

TRANSACTS BUSINESS in every description of Stocks and Shares, at the closest market prices, free of commission, and can well advise as to the sale or purchase of Railways, Mines, Banks, &c.

And are in a position to give special and trustworthy information as to the present condition and future prospects of Lovell Consols, Tin Valley, Wheal Jane, West Chiverton, North Jane, Great South Chiverton, and the Providence Mine.

Application for Tin Valley shares should be made without delay. We have a limited number for disposal at 20s. each. A substantial and speedy rise in the price of these shares may be confidently anticipated.

Bankers: London and Westminster, and Alliance.

Offices, No. 2, Bucklersbury.

BARTLETT AND CHAPMAN'S "INVESTMENT CIRCULAR
AND FINANCIAL RECORD"

(Published on the first Wednesday in each month)

Comprises—A Comprehensive Review of the Stock, Share, and Money Markets; an Enumeration and Comparison of the Whole Circle of Investments; and Valuable Suggestions for Purchase or Sale.

* Sent free on application.

2, Bucklersbury, London, E.C.

MR. HENRY MANSELL, 44, THREADNEEDLE STREET,
LONDON, has FOR SALE the following shares, free of commission:—

10 Chiverton Moor, £23½	1 West Seton, £210.	20 Wheal Grenville, 68s.
50 East Grenville, £23½	75 So. Condurrow, 32s 6	5 Great Wt. Vor, £18½
100 Prince of Wales, 23s.	50 Chontales, £1 8s. 9d.	20 Great Retailack, £23½
30 Drake Walls, 23s.	10 Wt. Chiverton, £52½	100 Redmoor, 6s.
70 New Lovell, £23½	5 Great Western, £2 13	75 No. Treskerby, 19s 6d

MR. C. A. POWELL, BRITISH AND FOREIGN STOCK AND
SHAREDEALER, No. 1, PINNER'S COURT, OLD BROAD STREET,
LONDON, E.C.

Business transacted in every description of negotiable securities at market prices.

BUYERS or SELLERS of Frontino, Chontales, Don Pedro, St. John del Rey, Pestarena, General Brazilian, Taquaril, Wheal Uny, Penballs, Prince of Wales, Brynpostig, Mid-Wales, or North Treskerby shares can be dealt with advantageously.

WANTED an offer for 50 or 100 St. Just Amalgamated.

During the week a large business has been transacted in Frontino shares, at prices varying from 18s. 6d. to 20s. The market closes firm. I am informed that the next remittance of gold, due end of present month, is expected to be fully 700 ozs., which will leave a profit of at least £600 on the month's operations. It must not be forgotten that five months since the loss was 2000, on the month, and that the present satisfactory position of affairs is the consequence of a steadily improving return. The average profit (as per above estimate) from the mines will have been in round numbers 4500, for the three months. It is unquestionable that the mines are in a far better position now than when shares were being eagerly bought at 3 to 3½ prem. Should the directors' anticipations of even increased monthly returns be realised, I see no reason why they should not command a market value of at least 37s. 6d.) within a short period.

Business transacted at net prices. References exchanged.

April 9, 1869. Bankers: City Bank, Finch-lane.

MR. G. D. SANDY, STOCK AND SHAREDEALER,
48, THREADNEEDLE STREET, LONDON, E.C.

Daily Price List on application post free. References exchanged.

INTENDING INVESTORS.—The "FINANCIAL GAZETTE,"
published by Mr. Y. CHRISTIAN, should be consulted with a VIEW to

the SAFE EMPLOYMENT OF CAPITAL. It contains Original Articles, a Review of the Money Markets, and a selection of investments paying 10 to 17 per cent., and such information as is necessary to guide intending investors.

6, Bond-court, Mansion House, London, E.C.

Bankers: Bank of England.

BUYERS AND SELLERS OF BRYNPOSTIG SHARES
Should apply to—

G

Original Correspondence.

HYDRO-CARBON FOR SMELTING.

SIR,—A communication appeared in the *Mining Journal* of March 27, "On Alleged Improvements in the Use of Hydro-Carbon Fluids in Combination with Superheated Steam for the Purpose of Smelting and Working Metals," &c., said to be provisionally specified by Mr. Paul E. Hodge, the patent agent. Seeing by the date of my list of patents provisionally registered that it was about eight months ago, I find that there is up to this time no completed specification for the said "provisional one."

Being myself at this moment professionally engaged about the construction of works for, amongst other applications, the same objects, and having been required to investigate patents long since specified both in England and abroad, I can pledge myself to the fact that all the particular applications, elementary materials, and processes for the objects alluded to in the *Journal* of last week—i.e., for combination of gas, or coal tar, naphtha, petroleum, or any of their combinations, to be used separately or combined, and rendered fluid by heat or otherwise, and moreover used in combination with superheated steam through and by means of compound jets, wherein the steam and hydro-carbons are brought together at the same time and in their proper equivalents to produce proper combustion, and that, too, by self-regulating equivalent instruments—was already patented long before Mr. Hodge's provisional specification, and it is curious that amongst the special arrangements of the patents which I have referred to that for smelting or melting purposes for any of the metals, the compound jets are inserted in combination with, or in close proximity to, the tuyere-holes or blast, or separate apertures made specially for these jets, so that the flame and heat arising from the combination and combustion of any of those elements may be united and commingled with any other combustible of a cupola, reverberatory, or other furnace, so as to reduce the charge; and, moreover, that in the patents I am engaged about, and which were before Mr. Hodge, it is rather curious those same compound jets were also used, amongst other special applications, for smelting, melting, or refining the metals, either in the said cupolas or any furnace for any manipulations of the metals with the hydro-carbon jets with the use of injectors for the distribution of jets, and impinging them on to the metals, to produce and regulate the heat throughout those or any furnaces, and wherein they are made applicable for calcination of ores and manipulation of glass siliceous clays. *See fumé dare lucem.*

Duke-street, Westminster, April 7.

SCRUTATOR.

COAL-CUTTING MACHINERY.

SIR,—Referring to the article on Coal-Cutting Machines in the *Journal* of March 27, I may observe your correspondent omitted to give the names of the inventors of the successful coal-cutting machine; Messrs. Firth and Donisthorpe's works were mentioned as the "premier" place, where the early machine was first successfully worked, but did not say that those gentlemen were the inventors. I will endeavour to put this matter in its proper form, so that your readers may know fully the facts, especially as Mr. Firth in his reply also withholds information on that point. He (Mr. Firth) makes one just and very true remark, that "sanguine inventors are always going to do something wonderful, but they often miscarry." I know of no instance where those remarks are so applicable as to some of the would-be mining engineers and improvers of coal-cutting machinery. I could give many instances. I hope Mr. Firth will not misunderstand me, and think I intend to apply this to himself. I do not, because I never considered him to be a sanguine inventor, although we find his name in the Blue Books. Mr. Firth appears to wish your readers to understand the wonderfully increased value of the machine during the last six months. I presume by his improvements ("Firth's patents") being "incorporated" upon the "original invention;" but I must acknowledge I cannot see the improvement, for we find in the *English Mechanic* of April, 1865, a lengthy paragraph, stating one machine to be capable of cutting "100 yards per eight hours." This is at the rate of more than 1000 tons per week. Again, in *Good Words* of April, 1864, the machine is said to be doing work at the rate of "15 to 20 yards per hour." And even as far back as 1862 we find, if I mistake not, a statement in the *Leeds Times* of the machine "cutting a groove 18 in. deep, for a length of 9 yards, in 15 minutes." This will not be much short of 1000 tons per week; and now, in March, 1869, we are informed that two machines are cutting 1000 tons a week, after the improvements ("Firth's patents"). Certainly we are told that this is not "the limit of their capacity." Why not? Are they allowed to work to their extent? Be this as it may, it is some satisfaction to the colliery owner, the working collier, and the inventors to know that the getting of coal by machinery is an accomplished fact.

But to return to the point—that is, the inventors of this original successful coal-cutting machine—I can say with truth that I was the originator of the machine at the West Ardsley Colliery; and I can say, without fear of contradiction, that the late Mr. Ridley and I invented the first coal-cutting machine put to work with success at the above colliery, and we also successfully applied the motive-power machinery which is so well adapted for underground work, and has since almost come into general use. I might also add that it was from the above arrangement of air-compressing machinery that Mr. Jones took the advantage. J. ROTHERY.

Leeds, April 5.

HAULAGE OF COAL AND TRANSPORT OF MINERAL.

SIR,—Upon two occasions during the present year you have prominently alluded to the economic removal of mineral—I refer to your comments on the report of the Tail-Rope Committee appointed by the North of England Institute of Mining Engineers, and to your report of the Wire-Rope Transport System invented by Mr. Hodgson—and I think much advantage would result to the mining interest generally if the subject were further considered. From the close connection between the question investigated by the Tail-Rope Committee and that involved in Mr. Hodgson's invention, it would be most desirable if the members of the Tail-Rope Committee could be induced to take the further trouble to investigate and report upon the working of the system of wire-rope transport. For my own part, I think your reporter has traced the connection of the traction on rails and suspended traction systems rather too closely, but I admit that there is ample room for doubt in this direction—the connection may be closer than we suppose. He states that, with the exception of the method of passing the points of support, the chief feature in Mr. Hodgson's invention, and that which gives it its great value, both for novelty and practical utility, is "the use of a travelling rope, which carries the load;" these recommendations the double-rope system does not appear to possess. And, after stating the durability of a rope used for suspended traction to be from three to four years, according to quality, he expresses the rather bold opinion that this arrangement would likewise admit of branch tramways, just as the coals are led from branches in the colliery in question and elsewhere in the same district—facilities which it would be very desirable to possess when several mines are worked by one company, and the ore has all to be taken to one shipping-port.

At present we are alike unable to prove or disprove these assertions, but they give rise to many important questions, the replies to which might materially vary the opinions entertained as to the most economic mode of conveying minerals at surface—for it is obvious that neither your reporter nor anyone else supposes that suspended traction would be applicable underground, and that the comparison with underground systems of traction is simply with reference to the mode of moving the load. Now, we know that the co-efficient of friction is only about one three-hundredth of the weight of the load upon level rails, and one-thirtieth of the weight of the load on common roads, so that a lode which can be moved by a pressure of 70 lbs. upon a level railway will require a pressure of 700 lbs. upon a common road. But in both cases the load is supported by a body (the rails or the road, as the case may be) outside the force of traction; consequently, the number of pounds pressure mentioned would remove a load of nearly 10 tons. If, then, the advantage of suspended traction be "the use of a travelling-rope which carries the load," I should be glad to learn whether the 2 tons would still be moved by

the application of similar pressure, or whether the traction would be increased to the weight of the load. Of course, I do not presume that it would be, but it would be interesting to know how much additional traction-power would be requisite. Another point of importance is the strength of the rope; it would be interesting to know how many separate loads of 2 cwt. each (carriage and contents) could be supported on a rope which would break on the application of a single weight of 2 tons. The answer would certainly be more than 20, because the load is distributed, but would it be much more? The supports are numerous, no doubt; but the rope runs freely over them, so that it is not divided into a series of separate short lengths, as in the case of a suspension-bridge. The very many questions such as these which arise could only be satisfactorily answered by such an investigation as was made by the Tail-Rope Committee. I am inclined to accept the view that the system of transport on the traction-rope is that which is the more worthy, but this appears to me to be likely to limit the weight carried to about 3 cwt. (carriage and contents), which would prevent its adoption for either coal or general transport purposes, though it would not at all affect its use for the carriage of ores, as it would be quite as convenient to carry them in quantities of 1 cwt. as of 1 ton, provided an equal quantity were passed over the line in the course of the day. I have not seen it announced by Mr. Hodgson, but should be glad to know the maximum weight that he could convey over a line of (say) 10 miles, with a rope of 3 in. circumference, and the size of the engine that would be required to work such a line. I presume by this time the system has been adopted by some mine, and I should be especially glad to learn, through the *Journal*, the absolute cost and all other details concerning it.—*Durham, April 3.*

H. K. B.

VERTICAL MINERAL SEAMS.

SIR,—I am desirous of opening out mining operations on a seam 3 ft. thick, as nearly vertical as possible for 100 ft. above level, and enclosed on either side in gneiss. Can any of your readers refer me to any published books treating on this subject? If they would do so I should feel obliged by this information through your columns.

VERTICAL.

MINING, AND THE PRESENT POSITION OF THE METAL MARKET—No. VII.

SIR,—The very great advance in the price of tin naturally calls attention to our mining industry and investment in British mining undertakings. The progress and retrogression of prices in tin during a number of years are both remarkable and instructive. In the midst of the great panic you did me the honour to insert a letter in which this paragraph occurs—"The prices of tin and copper have fallen to such a degree as to create a desponding influence upon all classes of persons engaged in the enterprise and commerce they open up. In six years the price of metallic tin has fallen from 136s. to 66s. per ton. This depreciation is unprecedented in the tin trade, or in that of any other mineral product in Great Britain. Black tin in June, 1866, was not worth in the market half what it was in June, 1860." In that letter I showed the causes of the depreciation. They were these—a very great augmentation in the tin produce of Cornwall, the companies anxious to compensate themselves for the low price by a large quantity, which, however it may have served individuals *pro tempore*, made lead worse as to the market value; in fact, as I then observed, "the more rapid the increase the more rapid the decline." Foreign competition was another of the causes then at work; that came from one great source of supply—the Straits settlements of the Dutch, which, although not the only region productive of the metal, is far more so than is found anywhere else. There is probably tin in India, Paraguay, and Mexico; and in South-West Northern America there is undoubtedly some, but the great Eastern Archipelago is, and for long will be, the great source of foreign supply. To meet the competition in 1865 Cornwall sent very nearly half as much more to market as in 1860. A third cause, not then dwelt on by me, of the cheapness of the commodity was the panic and the temporary dearthness of money, which political economists tell us—no special circumstance obtruding its influence—will cheapen commodities.

About the same period I called the attention of your readers to the fact that copper had receded from 105s. per ton in 1860 to 83s. in June, 1866, although in 1865 only 189,409 tons were produced, as compared with 236,696 in 1860. I ventured to say, in several subsequent letters while the financial panic was still oppressive, that the price of tin would rise, and that a few years would see that splendid industry buoyant as ever. I also ventured to express the belief that all existing forces portended depressed rates for copper. Of lead, which held up well, I expressed the conviction that it would still hold well through the financial storm then raging, and that in Cornwall, Cardigan, Monna, and Ireland lead mines would be highly remunerative, and a good investment. I am neither a prophet nor the son of a prophet, but happily of tin and lead my predictions came to pass, and as unhappily those of copper proved too true.

Now, Sir, let us look at the causes of the present high values of tin. One of these undoubtedly is that the companies found out the fact that over-production did not help them, and as the workings were unprofitable many good mines went to sleep. Consumption, also, which had dwindled to the lowest point, has revived; and, thirdly, stocks had so lessened that there was very little to meet the new demand. A fourth cause has been that we have had of late a great deal less "bulling" and "bearing" operations, which, by creating fictitious prices on one side or the other, as the "bulls" go up or the "bears" go down, worry the market, fidget investors, annoy those who work the mines, impede commerce in the metals, and prevent founders, plate makers, and workers in the finished metals from holding stocks, from the utter uncertainty of prices. All the while the intrinsic value of the mines is just the same, whether the "bulls" try to prop them up with their horns, or the "bears" to hug the life out of them. The "bulls" of late have sought other pastures, and, perhaps, are in clover somewhere else; and the "bears" are cuddled up in their dens, looking for, or enjoying, other victims in less frequented haunts. May the "bulls" fatten until they are not able to return, or be baited by any dogs of any degree that the worst society can produce. Travellers tell us that there is no animal so ferocious as Bruin half starved, and that when he has piled plenty of grease under his brown coat, now all the fashion, he licks his lips and takes a doze almost long enough for hybernation. It is to be hoped, then, that the "bears" have prowled elsewhere long enough to "lay it on thick," and that they will now sleep as many winks as will relieve the mining market for a long time from their presence. The decrease in the supply of Straits tin has also had its share in the present good prices. The Dutch sales have been greatly reduced, and in proportion prices have gone up. Hitherto the tin of the great Archipelago has been surface; now the operations of more laborious and scientific mining are required.

It is, however, likely that there are beds of tin in various directions undiscovered. "The Malay Archipelago" (as it has of late been more frequently called) stretches away between India and Australia. It would appear from various phenomena as if at some remote geological period these two continents were one; at all events, one portion of the intervening island was joined to Asia, and the other to Australia. Australia may be considered, in fact, as part of the island group extending to the uttermost range of that system. The Malay Archipelago extends about 4000 miles east and west, and 1300 miles north and south. It comprises many large and splendid islands and islets, too numerous easily to compute. The English flag floats at either end, on the point of the Malay Peninsula, together with Banca and the remotest point of Australia. It is likely that tin will be found in various places dotting these insular regions, especially in those of the group where the Dutchmen find it. The English had the opportunity of holding all the islands peopled by 16,000,000, over which the Batavian standard waves; but, in spite of Sir Stamford Raffles' counsels and protests, a ministry ignorant of their value conceded to the Dutch "the noble estate." From all the evidence yet adduced, the conditions and circumstances associated with tin already discovered exist elsewhere in the Dutch and other islands. The use of the metal is becoming more general all over the world, from a belief in its healthiness, its remarkable cleanliness, and its refined and tasteful appearance. The existing mines of the world will, of course, be exhausted—a mine, any more than other mundane things, cannot last forever.

At present, and for a long time to come, there is, and will be, fine scope for investment in mines yielding this product; as there is also, and with every probability of a long future, for investment in British lead mines. We have before shown that there are no better, safer, more remunerative investments. It has been lately said in your columns that tin has advanced 40 per cent. in value; if you compute from July, 1866, in two years and eight months it has risen 60 per cent. I shall, with your permission, in a future letter give some reasons and comparisons justifying the assertion that no more hopeful enterprise is open to honourable adventure than investment in the tin mines of Cornwall and lead mines of Cardiganshire.

Gresham House, Old Broad-street.

THOMAS SPARGO.

COPPER MINING ON LAKE SUPERIOR.

SIR,—A few items of news from Lake Superior may not at this time be uninteresting to your readers. Ere this you must be aware that the Copper Tariff Bill, imposing a duty of 5 cents per pound on imported ingot copper, though vetoed by the late President, has become the law of the United States. Though not a very strong advocate of a protective policy, I am free to confess that I see no chance for the Lake Superior mines collectively had not this been adopted. Consuming as the mines are large amounts of supplies that are protected—in short, situated in a country where protection is the rule—it was unfair that the copper mining interest should be shut out and deprived of the advantages, real or seeming, which result therefrom.

The tariff, combined with a more active demand for copper, has caused an advance in price. The average of the past year has been about 24 cents; ingot is now quoted at 27 and 27½ cents per pound. Copper men are, in consequence, feeling better, and people in this region are looking for more active times. In a former communication I stated that during the last two years at least one-third of the working force had left Lake Superior. The more sanguine think now that these will immediately be wanted back, and large numbers beside. Miners are looking for good times, there being scarcely a mine on the Lake but what could employ more men if they were to be obtained. Wages will probably advance, although at present there seems to be a disposition to adhere to current rates.

Besides the improvement in the price of copper, another important matter will tend to help the mines of the region. The year 1867 was pre-eminently a year of assessments, from two to three millions of dollars having been called from the stockholders: 1868 has been comparatively easy, not one-fifth the amount being called that was required during the previous year; and though no new mines have entered the dividend list, yet there is a certainty that some must pay heavily during the current year. It is difficult to get capital into a country where nearly all the mines at work pay nothing in the shape of dividends. Although it may be true that indications of riches are scattered broadcast around, but get a few substantial dividends and public attention is attracted, and public opinion, if necessary, is changed, so as to accord with circumstances. Still another encouraging feature might be named: improvements have taken place in several of the mines, which will enable them to materially increase their respective products during the coming season. I might name one or two mines, but will defer doing so until I write again, when I will deal more with particulars.

The winter so far has been, on the whole, very mild, and, for Lake Superior, pleasant. The last week has been the coldest for the season: until the last ten days very little ice was visible on the Lake, and the snow-fall has been moderate, there being in the woods a depth of about 4 feet.

MINER.

Keweenaw County, Michigan, March 10.

TIN AND COPPER MINES IN CORNWALL.

SIR,—One extreme is said invariably to produce another. Such is the fact with the price of tin. The American war, followed by the panic of the year 1866, caused the suspension, owing to the great and ruinous fall in the price of tin, of about 100 mines, probably, in the county of Cornwall. The immense supplies of tin from the Island of Banca led to the market being overstocked for a time, and down went the price of tin, from 90s. per ton in the ore to about 44s. Extremes cannot last any great length of time. Consumers of every article invariably hold back from purchasing until their stocks are nearly exhausted. Such, no doubt, has been the case latterly with tin. The advance in Holland last week of 10s. or 12s. per ton at the half-yearly sale of tin rather astonished the world, but when it takes usually from five to seven years to fairly open up a mine, this advance cannot be wondered at. Now that the presidential matter in America is settled, and the choice of that official seems to give general satisfaction, we may fairly hope for a continuance of remunerating prices for some years to come, as America is doubtless the best and greatest market for our tin.

The extraordinary quantity of copper exported to this country from Chili, Cuba, Australia, and one or two other countries during the last 20 years completely overstocked all the European markets, causing the suspension of many of our deepest and poorest mines in Cornwall and Devon. New countries have one great advantage over old—the mineral is found to exist in immense quantities near the surface, and generally of much greater percentage. To meet the increasing competition of the world, the future royalty or dues must be less, or little if any capital will find its way into the West to invest in any new speculations.

Old and exhausted mines seldom pay to re-open. The attention of capitalists should be directed to the searching for new mines, which invariably pay best; and doubtless there are many good and profitable mines yet to be discovered in many parts of Great Britain. Neither the mines in Chili or Cuba, from recent accounts, have paid as an investment of late years, owing, in the first place, to the great fall in the price of copper; secondly, to the decline in the percentage of the minerals; and, thirdly, to the increase of expenses in working the mines.—*Penzance, April 5.*

A. BENNETT.

LEAD MINING IN FLINTSHIRE.

SIR,—Your correspondent, Luther Martin, who, I suppose, is deeply interested in the advocacy of those generally unfortunate schemes, the resuscitation of abandoned concerns, and morbidly sensitive to any facts that tell against them, seems to have taken a rather jaundiced view of the object of my former letter. It was far from my intention to attempt to prove that celebrated "old and abandoned mines" will not pay for re-opening. My object was more to contrast the merits of two classes of speculation—the re-opening of old mines, and the discovery of fresh mines in unexplored tracts of country; and to show how insignificant, too often how hollow, are the inducements offered to investors by the former in comparison with the latter. He asks "whether there were any pumping-engines on Cathole, Pant-y-Mwyn, Llyn-y-Pandu, Hendre, Rhosmor, Milwr, Holway, Trelogan, and Talargoch?" This is not material to the question. I never said there were none; but I ask him the question—How many thousands of pounds of profits each one of the mines alluded to yielded from ore obtained above the water-line? For, although pumping-power was employed, yet it does not follow that more than half of the ore raised could not have been obtained without this aid, and, indeed, that more than half was not obtained without it. Again, I ask—Did not Rhosmor yield every farthing of profit from above the water-line? I do not for one moment condemn the application of pumping-power to mining operations, but I would, in a measure, limit it to the further working of lodes in which the ore has only been followed to the water level, or to but little below it, which is not the case in the celebrated abandoned mines referred to; most of them have been worked to a good depth below it.

I reiterate my opinion that "Lead mining never will pay so long as operations are confined to old mines," and your correspondent has yet to name one resuscitated abandoned concern in this county that does pay. He points out Talargoch, Holywell Level, and Minera. I have yet to learn in what respect Talargoch and Holywell bear the character of the concerns in question. The former, I am told, has been worked continuously for a great number of years by one company, into which a little fresh blood may have been instilled, but the original shareholders—those who took it in hand, I suppose about forty years ago—have never abandoned it, so it cannot be regarded as a resuscitated mine of the stamp I mean. The latter is a new mine, and the success of the Holywell Mine Company is attributed entirely to their "scurrying the old lodes, and to go boldly into a fresh part of their sett to look for others," having discovered a few years ago a new lode, distinct from the others, which is now yielding good profits. Minera is not in Flintshire, and, even if it were, I ask—Is the success of the Messrs. Taylor attributable to deeper explorations in the old lodes, or to discoveries in new ones? I think the answer will be—Far more to the latter than to the former. Whilst he has failed to mention one success in this county, how many failures can be pointed out? Need I mention Milwr, Herward, Billins, Long Lake, Rhosmor, and Hendre? I do not say that many of these mines would not pay if a sufficiency of capital were laid down to give them a thorough trial; but then so much money would be risked that I repeat, so long as there are fresh pieces of ground of merit to explore, I would not re-open one—unless, indeed, I could do it, as before observed, under circumstances different from those which existed when it was abandoned, through the medium

of a cheap adit level, for instance, which would, in a great measure, eliminate the expense of draining, or unless I had power, and was prepared, to work simultaneously every mine in the vicinity as far as the drainage through expensive means extended. Since Rhoscomore and other mines in the vicinity participate in the drainage of Hendre, it points out the desirability of working all of them by one company, and no doubt, were this done, success would be the result, or were it re-opened through the medium of an adit level, for driving which there are great facilities, I have no doubt it would soon occupy its old place in the estimation of the public. But, let the inducements be ever so great to develop abandoned lodes to a greater depth, in my opinion, they bear no comparison with those that can be offered in exploring for fresh lodes. In the one case you risk a fortune, the bulk of which, in the majority of instances, goes in draining expenses, to get, in any case, only the spare of former companies, whilst, in the latter, a small sum which goes in something more substantial than draining—in opening ground, the best application of mining capital—frequently discovers lodes from which not only the “milk,” but also the “cream,” of the deposits can be got; and the only success of late that I can chronicle are in speculation of this class. I have before alluded to Holway. I may now mention Rhoscomore—a piece of ground overlooked by wealthy investors, but modestly taken in hand by a local company, who, with an expenditure of about 900*l.*, discovered a lode which gave them 24,000*l.* in profits in a few years. At Pant-y-gof, also, explorations in fresh ground discovered the Crookford lode, which has been very rich. A success very little inferior to the others might also be mentioned at Parry's Mine. If success like these are the result of a few trials with a small expenditure in fresh ground, I ask, what would have been the result had the thousands of pounds swamped in re-opening old mines been applied in the same way? Supposing, for instance, that the 40,000*l.* which, I am told, has of late been spent in Hendre, had been applied to exploring that fine piece of highly mineralised ground to the east, south-east, and north of that mine, does not your correspondent think that that district would present a spectacle very different to what it does now, and that at least one good lode would have been discovered, which would amply compensate for the expenditure? If he does not, I believe I may count upon a favourable answer from the majority of the miners of the district. I pass over his other questions, which are not relevant to the subject.

A FLINTSHIRE MINER.

CHIVERTON AND MINERAL BOTTOM MINES—THE AMALGAMATION.

SIR,—I should recommend the holders of Chiverton shares to pause before giving their consent to the amalgamation now under consideration. True, that the chief holder in Mineral Bottom has procured a lease for 21 years, on behalf of that company, for five-sixths of the extent of the ground containing the north and south lode, but what are the returns that have been made from the Chiverton portion—or the remaining sixth, whilst there surely must be some doubt as to the value of the lease, otherwise Mineral Bottom Company would not be so anxious to share everything with Chiverton, seeing they have such an advantage in the extent of ground. Should the amalgamation be agreed to, the Chiverton shareholders must make a call of not less than 2*s.* 6*d.* per share, to pay law costs already incurred, and subsequently pay one-half of the 400*l.* premium paid by Mineral Bottom for the lease above mentioned. That Chiverton shares, in the face of the proposed union, continue to fall in the market, taken with the past experience of the manner in which Chiverton Company has been served by the acting local element in Mineral Bottom, ought to put the shareholders in the former on their guard.

A CHIVERTON SHAREHOLDER.

THE GOLD MINES OF VICTORIA, AUSTRALIA—No. II.

The original valleys or water-courses which existed at the period when the bulk of the alluvial gold found in Ballarat was deposited have, at a later age, been filled in and made level by basaltic or lava-like overflows. All the western side stretching out some miles to the south and to the north forms, therefore, one vast plateau or area of table land, terminating on the east face, southwards of Ballarat, with an abrupt escarpment of from 50 to 150 ft. in height, and not inaptly designated the Sebastopol plateau. At the foot of this escarpment lies the Yarrowee, the present water-course, which takes a southerly direction. East of the Yarrowee is a range of schistose hills, the valleys from which meet that water-course nearly at right angles, and there empty themselves. Originally, however, these valleys continued on in a westerly direction; those portions of them which lay beyond the present line of the Yarrowee Creek are now buried beneath what is, as already explained, one large expanse of basaltic table land. For more than a dozen years past the workers of Ballarat have been profitably engaged in probing and mining in these old water-courses or rivers below this plateau, with what result must be already sufficiently well known to the readers of the *Mining Journal*, and hardly requires to be repeated. Briefly, however, it may be stated that 19 companies, with a cash capital of 280,355*l.* 12*s.* 4*d.*, have paid dividends to the amount of 2,362,577*l.* 1*s.* 4*d.*

The Winter's Freehold, one of the two properties, a half interest in which is now offered to London investors, is, as its title implies, a freehold having an area of more than two square miles. It has been purchased by a number of Ballarat capitalists, who have begun and carried on persistently active mining operations. By referring to the map—lithograph copies of which accompany the prospectus, and may be obtained on application at the office of the company—it will be seen that the accumulation of evidence as to the value of the property, both from the bores put down and the workings of the neighbouring mines, makes it difficult to conceive ground more favourably placed for mining operations. The underground works of the Band of Hope and Albion Consols, the richest gold mine on record, have proved the Golden Point lead westerly up to within a short distance of and trending towards the Winter's Freehold. The run of gold, first discovered by the Sir William Don Company (which venture on a paid-up capital of only 2000*l.* returned dividends in little over twelve months to the amount of 131,000*l.*), after being taken up and wrought with exceeding profit in the claims successively of the Newton Freehold, the Western Freehold, and the Southern Freehold Gold Mining Companies has been traced into the Park Company's ground. That venture heavily in debt so lately as last June is now out of debt, in funds, and has distributed since in dividends no less than 40 per cent. on the paid-up capital. The slope of this golden ground is to the west, the fall to the south; and, consequently, trending towards the northern boundary of the Winter's Freehold, to within a short distance of which it has already been traced. The bores put down in the property prove beyond a doubt the existence of deep leads. The news by the last mail announces the discovery of gold in the southern portion of the Freehold. Those who have any knowledge whatever of mining will be able to appreciate the great value of the indications thus enumerated, and to see how small the margin now is between the desirableness of raising capital by the colonists to facilitate more efficient mining, and the point where capital must and will be no longer necessary.

The Great North-West property, although not a freehold, has a secure title under the mining laws of the district. Its area is nearly 4½ square miles, being by far the largest claim in the whole of the Ballarat district. It has one shaft sunk to within a few feet of the gutter, ascertained by boring to be the deepest ground within some miles, showing conclusively that the fall of the old water-courses must be the direction of the property in question. The company has very extensive plant and machinery, and mining operations are in active progress. The Great Northern Junction Gold Mining Company, occupying only a very limited area, which is carrying on successful mining operations within a short distance of the Great North-West Company's eastern boundary, has a paid-up capital of only 4000*l.*, and yet shares have been selling at the rate of 32,000*l.* for the whole mine. So careless, indeed, are shareholders in the Great North-West Company of the assistance of English capital, owing to the improved prospects of the mine from recent discoveries made in adjoining ground since their agent was dispatched to England, that a number of the proprietors are in favour of its withdrawal unconditionally from the market, and a resolution was carried on the second of last month and telegraphed to this country from Galie to withdraw the shares if not placed within a limited period named. This determination is little to be wondered at when it is considered with how great rapidity wealth has been developed in most of the Ballarat mines, and how small the success need be to alter largely for the better the prospects of almost any progressive gold mining adventure in that district. Respecting Ballarat itself, the second town in Victoria, a few facts may, perhaps, be enumerated with profit.

The district of Ballarat is distant 96 miles from Melbourne by the Government line of railway, via Geelong. It has a population of 40,000 inhabitants, whose municipal affairs are under the control of three borough councils. The local revenue at the present time exceeds 50,000*l.* per annum. It possesses extensive systems of supplies of both gas and water; besides the towns themselves, many of the mines by these means being furnished with gas as well as pure water for boiler purposes. Its foundries have supplied locomotives for the railways of more than one of the neighbouring colonies. The mines employ 387 steam-engines, having an aggregate of 9506 horse power. It has no fewer than eight banking establishments, whose businesses are conducted in structures of great stability and considerable architectural beauty. It has three daily papers, and returns four members to Parliament. There are Government post and telegraph offices, court-house, three police-courts, treasury, land and survey office, besides three town halls, twenty places of public worship, two theatres, four markets, mechanics' institute, free library, hospital, benevolent asylum, industrial schools for children, orphan asylum, botanical gardens, public park, and over 100 hotels. It numbers three rifle corps of volunteers. It has 200 miles in

length of streets, adorned by a number of substantial villa residences, over 90 miles of streets being metalled and formed. It is the focus of the most extensive as well as most productive agricultural district in all Victoria. As regards the value of land in the most central part of the town, it needs only to be stated that as much as 50,000*l.* per acre has been given. The district is estimated to have produced of gold alone in excess of 40,000,000*l.* sterling. In the year 1861 Ballarat formed part of a sheep-run—a mere uninhabited bush; what it now is may be better appreciated by perusing the foregoing statement of facts.

It is not often undertakings of the stamp and character of the two now advertised are offered to English investors, accredited with such evidences in their favour, or backed by such exact knowledge. Whether English investors will miss their present opportunity (which is hardly likely) or not, it can have no effect whatever on the continuance of mining operations. If shares are taken up well—if not well also. The present holders have given the best guarantee possible of good faith, by purchasing in the one case the freehold, more than two square miles of ground, and in both cases by subscribing largely for carrying on extensive mining operations, the progress of which, in any event, will not be arrested even for a single day. Doubtless, the magnitude of these undertakings admit of the advantageous employment of additional capital for their proper development, but news by a single mail may render the assistance of what colonists call foreign or English capital, if not unnecessary, at any rate, less imperative.

FOREIGN MINING AND METALLURGY.

The state of the Belgian coal trade has not experienced much change during the past week. The deliveries made by railway may be a little more active at one point and a little less active at another, but in reality the state of the Belgian collieries has not improved; the extraction has been much reduced, and it is to this check in the production that we must attribute the maintenance of prices. Freight show little or no variation. The state of the Belgian metallurgical market has not changed this week. Current orders for merchants' iron and plates continue to come to hand freely, and prices are maintained, in consequence, with great firmness. The rolling-mills producing rails are provided with work for several months to come, and it is stated that several works propose to extend their means of production. Some fresh contracts for rails have been in course of negotiation of late. The sales of gas effected by the Belgian General Company for Lighting and Heating by Gas amounted in the six months ending February, 1869, to 213,622,332 English cubic feet, as compared with 201,285,614 English cubic feet in the corresponding period of 1867-8, showing an increase of 12,336,718 English cubic feet. The Belle-Vue St. Laurent (Lige) Colliery Company will pay, on April 14, a dividend of 12*s.* per share. The Kessales Colliery Company is paying a dividend of 16*s.* per share for 1868. The Monceau Blast-Furnaces Company is paying a dividend of 2*s.* per share for 1868. Meetings are announced as follows:—Lower Sambre United Collieries Company, April 6, at Taminies; Quaregnon Colliery Company, April 8, at Quaregnon; Scllessen Blast-Furnaces, Iron Works, and Collieries Company, April 12, at Scllessen-Tillieux; Val-Benoit Colliery Company, April 12, at Lige; Picton-Campagne Colliery Company, April 12, at Charleroi; Charleroi and Vieux-Collieries Company, April 12, at Charleroi; Carabier Colliery Company, April 13, at Brussels; Gosson-Lagasse Colliery Company, April 13, at Montegnée; Belle-Vue St. Laurent Colliery Company, April 14, at Lige; Belgian Colliery Company, April 25, at Mons, &c.

The French iron trade maintains its favourable aspect, and prices maintain the firmness previously reported in them. At St. Dizier first-class iron from coke-made pig is quoted at 77*l.* 16*s.* to 82*l.* per ton. Transactions have taken place in mixed pig at an advance upon preceding rates. In the Meurthe and the Moselle the rate which we have previously indicated for iron is sustained, the current quotation being 8*l.* 8*s.* to 8*l.* 16*s.* per ton. Rolling pig stands at 2*l.* 13*s.* per ton for immediate delivery, and 2*l.* 12*s.* 9*d.* to 2*l.* 13*s.* 6*d.* per ton for long-term contracts. Annexed are official data as to the production and importation of pig and castings in France in 1867 and 1868:—

	1867.	1868.
Production of France	1,274,333	1,222,363
Imports—Rough pig, with duty	16,976	80,377
“ Worked pig, ditto	4,781	5,414
By warrants	98,570	57,728
Duty free, for shipbuilding	1,471	1,286
Total	1,396,131	1,367,168

The exports of pig and castings from France in 1867 and 1868 were:—

	1867.	1868.
Exports of rough pig	1,103	350
Exports of worked ditto	5,180	3,070
Re-exports, with discharge of warrants	24,173	17,855
Total	30,456	21,275

Deducting the exports and re-exports after and prior to labour with discharge of warrants from the imports and production, and taking account of the stocks existing on Dec. 31, 1866, and Dec. 31, 1867, it will be seen that the internal consumption of pig and castings in France amounted in 1867 to 1,345,893 tons, and in 1868 to 1,365,895 tons. The production and imports of iron and plates in France in 1867 and 1868 were:—

	1867.	1868.
Production of France	916,645	848,613
Imports—With payment of duty	15,306	18,880
By warrants	50,244	56,511
Free for shipbuilding	12,699	5,714
Total	994,890	929,718

After making similar calculations to those already made as regards pig, we arrive at a consumption of 818,026 tons of iron and plates in France in 1867, and 844,685 tons in 1868. The consumption of pig (including in that term castings) and iron in France would thus seem to have sensibly increased in France in 1868 as compared with 1867; the exports also increased, especially as regards iron and plates. The production of Bessemer steel in France in 1868 was as follows:—Terrenoire Company, 20,566 tons; Imphy St. Seurin Company, 9321 tons; Petit, Gaudet, and Co., 8777 tons; De Dietrich and Co., 1840 tons; Châtillon and Commeny Company, 1845 tons; Boignes, Rambourg, and Co., 1652 tons; total, 49,061 tons. In this total “the figure of 35,760 tons, the whole being used by the great French railway companies. The production of iron rails in France in 1868 amounted to 324,205 tons; of this total, 137,167 tons were used by French railways properly so called—by the Charente, 6811 tons; by the Eastern, 29,079 tons; by the Paris, Lyons, and Mediterranean, 19,814 tons; by the Medoc, 1437 tons; by the Southern, 3865 tons; by the Northern, 13,905 tons; by the Orleans, 34,015 tons; by the Western, 6908 tons; and by sundry small companies, 11,933 tons. The balance of the production, amounting to about 77,000 tons, was employed partly in mines and was partly sent abroad. The Monceau Blast-Furnaces Company is paying a dividend of 2*s.* per share. The Loire Mines Company is paying a dividend of 11*s.* 3*d.* per share for 1868; of this dividend, 6*s.* 6*d.* per share is now in course of payment. The Marcellies Blast-Furnaces and Foundries Company is paying 11*s.* 3*d.* per share on account, in respect of the dividend for 1868. Meetings are announced as follows:—Pont de Loup-Sud Collieries Company, April 5, at Paris; Blache St. Vaast Foundries and Rolling Mills Company, April 5, at Paris; Denain and Anzin Blast-Furnaces and Forges Company, April 7, at Paris; St. Chamond Collieries Company, April 12, at Paris; Hermès Colliery Company, April 12, at Paris; Montataire Forges and Foundries Company, April 13, at Paris; Moselle Colliery Company, April 15, at Paris; Grand Combe Mines Company, April 17, at Paris; Carmaux Mines Company, April 20, at Paris, &c.

Copper has remained somewhat feeble at Havre; affairs are quiet, and prices remained at the last dates at 72*l.* per ton, Paris conditions. On the German markets affairs present little animation. At Amsterdam, English has made 45½*l.* per cwt. At Rotterdam, Russian has made 51*l.*, and Dronthien 50*l.* to 53*l.* At Havre, Banca tin has made 117*l.* to 118*l.*; Straits, 112*l.* to 113*l.*; and Java tin, 100*l.* to 101*l.* per cwt. The man tin market appears to be those on which the article has experienced the most marked and general advance. There is little change on the Dutch markets; in consequence, everyone maintains an attitude of reserve. This reserve is recommended by the principal houses of Amsterdam and Rotterdam, which unanimously advise only such purchases as are needed to meet the requirements of consumption. Different contracts have been concluded at Rotterdam for 8½*l.* for, for disposable Banca; for Billiton under sail, 79½*l.* has been paid, and disposable is held 80*l.* At Amsterdam, prices present no material changes. The lead markets have remained without much animation, but previous rates have been about supported.

MINING ON THE PACIFIC COAST.—A San Francisco paper gives an elaborate review of the mining operations on the Pacific Coast during the year 1868. Mining for the precious ore is carried on actively in 19 counties of California, in which about 5000 quartz mills, valued at \$6,500,000, are employed. Ten million dollars are invested in water trenches. Nevada has 169 quartz mills; Oregon, 21; Idaho, 43; Montana, 601. In the territories of New Mexico, Arizona, Utah, and Washington, although large deposits of the precious ores are known to exist, mining operations are not conducted on any considerable scale. The general view in the year 1868 is the largest in the history of mining in the United States, one of the causes being the introduction of improved and much cheaper methods of eliminating the precious metals from their native ores. The total yield for the year is set down at about \$65,000,000.

SCIENCE AND ART.—A striking instance of the immense value a small piece of steel may acquire by the great power of skilled mechanical labour is the balance-spring of a watch. From its extreme fineness and delicacy 4000 weigh not more than one ounce, and exceed in value 1000*l.* A most interesting little work, describing the rise and progress of watchmaking, has been published by Mr. J. W. Benson, 25, Old Bond Street, and the City Steam Factory, 88 and 60, Ludgate Hill. The book, which is profusely illustrated, gives a full description of the various kinds of watches and clocks, with their prices. Mr. Benson (who holds the appointment to the Prince of Wales) has also published a pamphlet on Artistic Gold Jewellery, illustrated with the most beautiful designs of Bracelets, Brooches, Earrings, Lockets, &c., suitable for Wedding, Birthdays, and other presents. These pamphlets are sent post free for two stamps each, and they cannot be too strongly recommended to those contemplating a purchase, especially to residents in the country or abroad, who are thus enabled to select any article they may require, and have it forwarded with perfect safety.

Meetings of Mining Companies.

LINARES LEAD MINING COMPANY.

A general meeting of shareholders was held at the offices of the company, Queen-street-place, on Thursday, Mr. WILLIAM COX in the chair.

Mr. SWAFFIELD (the secretary) read the notice convening the meeting, and the report of the directors (which appeared in last week's *Journal*) was taken as read.

The CHAIRMAN said it was gratifying to the board to have been able to declare the dividend, which he almost promised at the last meeting, of 3*s.* 4*d.* per share, and it was further gratifying to be able to promise another dividend of a similar amount six months hence. As they had known for a long time, the old Pozo Ancho Mine was wearing out—that is, taking the present price of lead into consideration. It was true that the amount of reserves in the mine had not diminished, but it was also true that if lead were at the price it was some years since there were many thousands of tons more that could be extracted at a profit. But at Quilentes Mine it was not too much to say that it presented a fair prospect of profits and dividends being realised, supposing the old mine should entirely fail. The result of the explorations had been most satisfactory, and as far as he was concerned he was looking forward to Quilentes proving as good a mine as even Pozo Ancho. Although born yet below the old men's workings, some of the lodes were producing 2 tons of ore per fathom, and they were proceeding most vigorously with the sinking towards another level, and when they commenced driving, should the mine hold as good as it was now, it would certainly become a very productive and profitable property. He considered it necessary to make these observations because there had been rumours that because the old Pozo Ancho had failed in depth the prospects of the company were discouraging. He moved that the report and accounts be received and adopted. Mr. BRANT seconded the proposition. Mr. TAYLOR said that at present the expenditure at Quilentes Mine was one of capital, but it was the hope of the directors that it would be brought into a self-supporting condition within the amount set apart by the shareholders for that purpose. As to the old mine, there was no disguising the fact that it had been gradually wearing out for many years, but, as the Chairman had said, if lead should advance to the old price of 21*l.* or 22*l.* per ton there were thousands of tons of ore which could be extracted at a profit. The Chairman had been sanguine enough to express an opinion that Quilentes will prove equal to Pozo Ancho in productiveness, and although he (Mr. Taylor) did not, perhaps, go to that extent, yet there was no question that it was one of the finest pieces of mineral ground in the whole of that enormously rich district—the Linares. It was probable that it would open out a most valuable property, and the object of the directors was to bring it as soon as possible into a condition for making remunerative returns. Referring to the price of pig-lead, he mentioned that during his father's lifetime it had varied from 12*l.* to 40*l.*, and he found that during the first two months of the last three years the imports had been 4005 tons in 1867, 3639 tons in 1868, and 4626 tons in 1869, while the exports during January and February of this year were 7785 tons, as against 6093 tons in 1868, and 3073 tons in 1867. During the first two months of this year the export to China alone amounted to 1900 tons. Those figures showed an improved trade, and he thought there was fair ground to hope the price would advance.

A SHAREHOLDER asked to what price lead must advance to enable them to extract the larger quantity of reserves from the old mine?—Mr. TAYLOR stated that a very large quantity of the poor ores in the old mine could be profitably extracted if lead were at about 21*l.* per ton.

The report and accounts were adopted unanimously.

The retiring directors were re-elected, and the auditors were re-appointed.

The CHAIRMAN, in reply to a question, stated that no step had been taken with regard to the amalgamation of the Linares, Fortuna, and Alamillos Companies; the matter appeared to be beset with considerable difficulty.

A vote of thanks was unanimously accorded to the Chairman and directors, also to the secretary and the other officers of the company.—The CHAIRMAN said that Mr. Swaffield certainly merited their thanks; he has conducted the business of his department with great care and ability, and was in all respects a most efficient secretary.—Mr. SWAFFIELD acknowledged the compliment, and the proceedings terminated.

FORTUNA COMPANY.

The general meeting of shareholders was held at the offices, Queen-street-place, on Thursday.—Mr. CHARLES MORRIS in the chair.

Mr. SWAFFIELD (the secretary) read the notice convening the meeting, and the report of the directors (which appeared in last week's *Journal*) was taken as read.

The CHAIRMAN said that the profit made during the half-year, taking all things into consideration, was very satisfactory. That profit had been realised during a time when the price of lead had been exceedingly low, but they had good reason to hope an improvement would soon take place in the market value of that metal. Another satisfactory feature was that the debenture fund was being gradually diminished, while the directors had at present in hand the sum of 3214*l.* towards the amount which had to be paid during the next two years. As to the revolution in Spain, the company had not suffered from it in any way. Everything had gone on as if no political convulsion had taken place. He moved that the report be received and adopted.—Mr. PELL seconded the proposition.

Mr. W. COX, in reply to a question, stated that 3214*l.* had already been put aside to redeem 7500*l.* worth of debentures, the greater part consisting of bonds themselves. If the mine only continued as at the present time he was looking forward not only to maintain the present rate of dividend, but at no distant date to increase it to 4*s.* 6*d.* and 5*s.* per share every six months.

Mr. TAYLOR said that the mines were admirably provided with machinery—indeed, they were never before in such an efficient state of working, which had been brought about by the employment of the debenture money. The whole of that will now be returned in a very short time. He thought these mines were likely to be profitable for a long series of years. It could not fail to be satisfactory to the shareholders that the mines were maintained in an equal state of production with undiminished reserves, and the maximum of profit realised.

The report was adopted unanimously.

The retiring directors and auditors were re-elected.

A vote of thanks was passed to the Chairman and directors, which terminated the proceedings.

ALAMILLOS MINING COMPANY.

A general meeting of shareholders was held at the offices of the company, Queen-street-place, on Thursday.

Mr. J. P. JUDD in the chair.

Mr. SWAFFIELD (the secretary) read the notice convening the meeting, and the report of the directors (which appeared in last week's *Journal*) was taken as read.

The CHAIRMAN said he had nothing to add to what was stated in the report, except to congratulate the shareholders upon the fact that the profits had been gradually increasing year by year, and also upon the fact that there was every reason to hope that they would still continue to be satisfactory. The raisings had been steadily maintained, and the price of lead had advanced, while the firm indication of the market pointed to a still further improvement in that direction, so that there was every reason to hope that the result of the next half-year's operations would be as satisfactory as that upon which he had congratulated them upon the present occasion. He moved that the report be received and adopted.

Mr. TAYLOR said that although the property continued to produce satisfactory results, the “ends” in the different levels were not looking so well as they had done. Latterly the reports had stated that the vein was yielding 1 and 1½ ton per fathom, whereas they had been worth 2 and 3 tons. But, on the other hand, they had ascertained this important fact, that they possessed a mine which could be worked comparatively cheap, while the water was a very moderate charge, all the water pumped being used for the purposes of washing. The ground was easy for working, which rendered the lodes yielding 1 ton per fathom as profitable as those in other mines yielding 1½ and 2 tons per fathom. The agent did not lead them to think there would be any falling off in the returns, and, moreover, the quantity of ore in reserve was equal to what it was six months since.

A SHAREHOLDER asked if the change in the Spanish Government had affected the company's operations?—Mr. TAYLOR said that certainly no adverse effect had been produced. The company had been selling considerable quantities of lead to the Government factory at Seville, and they were in hopes of being able to sell lead in America.—The report was adopted unanimously.

The retiring directors and auditors were re-elected.

A vote of thanks to the Chairman and directors concluded the proceedings.

LAGUNA SILVER MINING COMPANY.

The ordinary general meeting of the shareholders was held at the offices, King William-street, on Wednesday.—Mr. HILL in the chair.

Mr. G. E. HOOKE (the secretary) read the notice convening the meeting. The report of the directors (which appeared in last week's *Journal*) was taken as read.

The CHAIRMAN said the report substantially expressed all that the board had to lay before the shareholders; and with the knowledge of its contents, his duty was simply to ask them to determine which would be the best course to raise further capital. As the capital had been so nearly absorbed, it became a necessity to decide upon the way further means could be provided. There were no special features to bring before the shareholders as to the richness of the mine; all he could say was that generally it had the reputation of being a very valuable property. It had been seen by Mr. Sewell's report that the mine was contiguous to other very valuable properties. In the judgment of the board, and also in his own, and he hoped also that of the shareholders, it would be most unwise, if not cowardly, to allow the property to pass out of their hands without some well-directed effort to develop it to a successful result. There was no doubt it would be quickly taken up by others, and it certainly would be no subject of gratification to see others reap the fruits of the expenditure incurred by the present company. The sum of 5000*l.* was almost absolutely required to do justice to the mine, for they could not disguise the fact that hitherto the operations had not been carried on with that vigour which the merits of the property justified; but this the directors had been constrained to do, on account of the limitation of capital. Mr. Sewell says that they should sink at the rate of 1 vara or 1½ vara per week, whereas they had been doing less than ½ vara. They possessed a property comparatively undeveloped, and with a very good reputation. If Mr. Sewell's report was to be relied upon—and there certainly was no reason to doubt it—it was obviously the duty of the shareholders to put their shoulders to the wheel to open out the mine. Therefore, the only question was as to the best mode of raising further capital, which he would leave to the shareholders to discuss. He moved the reception and adoption of the report.

Major WELLES seconded the proposition.

Mr. SMITH, in reply to a question as to the depth they would have to sink to

reach the productive points in the neighbouring mines, stated that the direction of the adit on the Purisma vein is almost at a right angle to the Laguna, and, consequently, the shortest distance or road to it for proving the Laguna at about 110 varas east of the present workings. As the hill towards the east rises a great deal, the adit would cut the Laguna vein at a depth of 100 varas. As (added Mr. Smith) they were down 93 varas, they were within a few varas of the required depth.—The report was adopted unanimously.

After some further discussion, it was resolved that in the opinion of the meeting the Laguna property is still deserving further development, and for that purpose a sum not exceeding \$5000, to be raised by preference shares, bearing a preferential dividend of 20 per cent. per annum, to be paid out of the first profits of the mine, and that in the meantime the company's solicitor ascertain more definitely the power to issue such preference shares.

Upon the proposition of Major WELLEN, seconded by Mr. SWAFFIELD, it was agreed that Mr. Cremer should be elected to a seat at the board.

Upon the proposition of Mr. SMITH, seconded by Mr. SWAFFIELD, it was agreed to add Mr. J. R. Daniel to the board.

Major WELLEN then proposed a vote of thanks to the directors for their great attention to the interests of the company during the past year, and begged also to be allowed to include in it the secretary.—The CHAIRMAN briefly responded on behalf of himself and his colleagues, and expressed his appreciation of the deserved compliment paid to the secretary.

A vote of thanks to the Chairman terminated the proceedings.

LEAD MINING IN MONTGOMERYSHIRE.

THE VAN MINE.

The miners and others employed in the development of this property, numbering with their friends about 400, were entertained at a dinner at the Town Hall, Llanidloes, on April 2, under the presidency of Mr. T. C. MUNDEY, the vice-chair being occupied by Mr. G. BATTERS.

The directors present were Mr. F. L. Slous, late Chairman of the Stock Exchange; Mr. Julius Alington, St. Neot's, Huntingdon; and among the visitors present were—The Rev. H. Ward; Mr. W. Margetts, of the Stock Exchange; Messrs. — Thomas, Mayor of Llanidloes; F. Broughton, manager, Mid-Wales Railway; A. Henshaw, manager, Brecon and Merthyr Railway; T. F. Roberts, Edward Rees, Dr. Davies; the Revs. H. Jones (vicar), H. Parry, — Wilcox; Captains Williams and Evans; Messrs. Gillart, E. Evans, J. Ikin, Price (North and South Wales Bank), David Kinsey, R. S. Greenhow, Lloyd Kinsey, Breeze, Francis, &c.

The usual loyal toasts having been disposed of, Mr. EDWARD REES observed that he had very great pleasure in meeting the gentlemen who were connected with the Van Mining Company, who had come there on purpose to further the very same interests that they had in view. They, therefore, sincerely thanked them, and also for the feast they had provided for the workmen. (Applause.)

The CHAIRMAN then gave "The Town and Trade of Llanidloes." That was a toast which came home to the thresholds of their own doors, inasmuch as if the town of Llanidloes prospered it must be through its trade; and he apprehended that trade would be greatly increased by the introduction of mining properties in the neighbourhood, which would give a large amount of work to the artisans and labourers inhabiting the town. Therefore, they were all, directly or indirectly, interested in the toast, and would heartily receive it. (Hear, hear.)

Mr. EVAN EVANS responded. He said that was a small town, and their trade was not very extensive, but during the time he had known it a good deal of progress had been made. Any stranger coming into their neighbourhood, and seeing their barren hills, would fancy it was a very poor country; but they were glad to know that in their bowels were treasures of immense wealth, and that meeting was a demonstration of the mining wealth of the neighbourhood, as well as the success of the Van Mine. (Hear, hear.) He thought its success reflected great credit on Capt. Williams, and he congratulated that gentleman on his good fortune and his success in developing such a mine, and he hoped there would be many more such mines in the neighbourhood. (Hear, hear.) He begged to return thanks to them all for drinking to the prosperity of the town.

Mr. T. F. ROBERTS proposed "Success to the Van Mine, and its Proprietors." The inhabitants of these parts were not particularly enterprising, but they were sufficiently intelligent to be able to appreciate those who were enterprising. (Hear, hear.) They knew those who came there to do them good, and he believed the proprietors of Van Mine had come there for that purpose. What they had wanted was one or two good mines in their midst, and they certainly could not wish for a better mine than Van. (Applause.) He was told that about 160 tons of ore per month were raised, and that 800l. per month were paid in wages. It could easily be seen, therefore, what a great stimulus mines of this sort were to the trade of the town. (Hear, hear.) This was not a case of an absentee landlord, but it was the case of a great industry spending in that neighbourhood the wealth that was produced there. He might be excused if, before closing, he said a word about the country from which miners were taken, and he might be also excused if he had a tolerably good opinion of his countrymen. (Laughter.) They were orderly, industrious, honest, and manageable. (Applause.) The majority of them were sober, steady men; and if a few of them were their own enemies, there was not one of them an enemy to his master. (Cheers.) The late Mr. Blackwell had said at an Elsteddod meeting that if he were asked to point out the most striking peculiarity of his native country he would not point to their rugged rocks, nor to their silvery lakes that reflected the woodland scenery, nor to the stupendous works of art they saw, but he would point to a brave, loyal, and industrious peasantry—a peasantry before whom Justice had sometimes to adjust its scales, but never exert its sword. He would now merely express his heartfelt wishes for the prosperity of the company; he believed great wealth existed there, and that prosperity would attend them for a great number of years. No man wished it might be the case more than he did. (Loud Applause.)

Mr. SLOUS was pleased to respond to the toast. He trusted and believed their undertaking would be a success; and that would also be success to the many industrious and intelligent working men he saw around him, as well as to their wives and families, whom he was most happy to see there. Captain Williams informed him he had been employed in the Van Mine for 20 years, and he thought that was a most satisfactory state of things. He had been down the shaft that day. (Applause.) He had done it as a matter of duty, but it was not a pleasant one. He had, however, seen at the bottom of the mine that which convinced him that they had there not only prosperity for another 20 years, but also for their children and grandchildren, and all he saw around him. (Applause.) They were not butterflies, here to-day and gone to-morrow, but they intended to stick to those present as long as the Van Mine lasted. (Cheers.) They might depend upon it that the energy, capital, and amount of intelligence they possessed would be exported for those around them, as well as for themselves. (Applause.) He would not detain them with a long speech, but would thank them on behalf of himself and brother directors for the kind way in which success to the Van Mine had been proposed and responded to. (Cheers.)

The CHAIRMAN said they had heard much of the productiveness and good quality of the Van Mine—that mine had a proprietor, and that proprietor was Lord Vane. He was about to propose the healths of Lord and Lady Vane, the latter of whom he understood took great interest in the mine, it having descended from her father. He was also told that Lord Vane was a very liberal landlord, but that they had to test; but it was said he was a good man of business, and that was all they required—to be met in a business-like way. They had the means, and they had somewhat of practical knowledge, as well as a good dose of theoretical knowledge. They would extend the property, and in doing so they would have to expend capital; and while it was an advantage to the town, they hoped to receive a corresponding reward themselves. (Hear, hear.) Lord Vane, through his agent, who had been present but had now left, desired him to express his great sympathy with the meeting, and further to say that he had a special engagement on one of the financial boards with which he was connected, or else he would have been present on this occasion. (Applause.) His Lordship would be in the neighbourhood shortly, and if the Van Mining Company were able to carry out what on their part would be a most liberal offer, every inhabitant would directly or indirectly receive a benefit from the negotiations which he trusted would be carried out. (Applause.)

Mr. THOMAS (the Mayor of Llanidloes) briefly proposed "The Health of their worthy Chairman." (Applause.)

The CHAIRMAN thanked the company most heartily for the way in which they had received the toast. That was the first time he had had the pleasure of meeting them in that way, but he hoped it would not be the last. He now promised the labourers and workmen connected with the Van Mining Company that if he were alive and well this time next year they should have an entertainment of a similar character. (Prolonged applause.) He was much pleased with their behaviour on that occasion, and he trusted they would be the better for that meeting, and that they would bring up their children in a creditable manner.

Dr. DAVIES proposed "The Health of Mr. Batters, the Vice-Chairman." (Cheers.) He had not had the pleasure of seeing him till that day, but what he had seen of him led him to wish he might see more of him; they were, therefore, pleased with the assurance that he would come amongst them and stay with them at intervals. They had never seen anything like the Van Mine before, and there was the assurance of a continuance of its prosperity that would do good to the neighbourhood. (Applause.)

Mr. BATTERS said he thanked them very much for the honour they had done him in drinking his health so enthusiastically. He was a comparative stranger among them, but not a stranger in Wales—not a stranger among the mining community of Wales. He had been connected with Wales for many years—the greater part of a quarter of a century—during which time he had sent tens of thousands of pounds into the Principality for the support of mining—sometimes with success, sometimes with a want of success. But he certainly did rejoice in coming into their neighbourhood, and in being connected with so good a mine as Van, and such an excellent body of workmen. He was proud to be associated with them in that undertaking, to have been instrumental in the purchase of this property, and in introducing his friends as shareholders there, and thus revivifying, giving fresh life and fresh activity, and an impetus to that great undertaking. He thought the Van Mine was not only the best mine in Wales, but in Great Britain. (Applause.) He had bought many mines—lead, copper, and so on—but he had never been instrumental in purchasing property which had given him such unqualified satisfaction as the purchase of the Van Mine. (Cheers.) He could bear testimony to the very great courtesy which Capt. Williams had shown him when he first, as a stranger, visited the mine. He then saw all its wonders in a brief space of time, and he was thankful to say that it took such hold of his mind that he came back to that hotel, and there made the proprietors the offer of a princely sum of money for the undertaking; and eventually succeeded in purchasing it. He believed they had the greatest lode in the Principality—only requiring perseverance, a judicious further expenditure of money, and a little patience—and that the mine was comparatively yet in its infancy, and that as they grew so it would grow. The gentlemen he had introduced to them were not selfish men; they were desirous to see the workman well paid for his labour, as well as to serve themselves, by securing a profit upon that labour. (Applause.) He had the greatest possible confidence in the working man. He had had a good deal of experience of miners in North-

umberland, Durham, and North and South Wales, and he had formed the highest opinion of them. He had known them for more than 30 years, and he remembered well the time when the miner had not half the self-respect he now had for himself, and his cottage was not so neat and tidy as now it happily was. Mr. Batters then proceeded in eloquent language to urge those present to habits of cleanliness, sobriety, and industry, and so far as possible to put by a little against troublesome times and old age, to cultivate the love of home and homely virtues and affections. And so surely as they were industrious, truthful, and God-fearing, so surely would they do well, have happy homes and prosperity, wherever they went. He then referred to the promise of Mr. Munday to give another dinner, and said he was a man who always kept his word. (Applause.) He hoped on that occasion they would rejoice in the greater prosperity of the Van Mine and all connected with it. (Loud and prolonged cheers.)

Mr. F. BROUGHTON proposed "The Health of the Employees." He observed that he was happy to have the opportunity of proposing this toast. He had had from 200 to 500 men under him, and he could say he had never sat down to a dinner at which working men had conducted themselves in a more orderly and respectable manner. He had great pleasure in proposing their healths, and he believed they deserved all that had been said of them. By their help—it must be with their assistance, for although the head might plan, and although the Chairman and his friends might bring their money down—without their strength and hands there was no good to be done. They (the working men) were a very important part of this undertaking, and that importance had been recognised on all hands that night. He hoped they would continue in the way they had begun, and in the words of the motto he saw on the wall—"Might their Source of Wealth never be Exhausted." (Loud Applause.)

Mr. BATTERS proposed "The Health of Capt. Williams" in eulogistic terms, bearing testimony to his worth as a man and as a miner. (Applause.) They all knew how much depended upon a head, and certainly they were very fortunate in having such a good head as Mr. Williams—a man whom he sincerely believed was desirous of leading his men and not driving them. (Hear, hear.) He believed Welshmen could easily be led, but were terribly bad ones to be driven. (Laughter and applause.) It was necessary for them to have confidence in their captain, and he felt sure they all had confidence in Capt. Williams. He had seen him under trying and difficult circumstances, and he had come out of the trial with great credit. If they had found he could have been guilty of an act unbecoming a man and a gentleman, he never would have been one hour in their employ. He deserved the support and confidence of everyone in Llanidloes, as well as of everyone connected with the mine. He had, therefore, the greatest possible pleasure in proposing the health of their manager, Capt. Williams, and his family. (Much cheering.)

Capt. WILLIAMS, in responding, said the gentlemen comprising the company were thoroughly practical miners. He believed the mine contained rich stores of wealth for ages yet to come. In the last month it had been worth five times more than it had ever been before. (Loud applause.)

Mr. JOHN EVANS, one of the workmen, proposed a vote of thanks to the directors of the company for their liberality, wishing long existence and prosperity to the company.—The proceedings then terminated.

WICKLOW COPPER MINING COMPANY.

The half-yearly general meeting of shareholders was held at the offices, Grafton-street, Dublin, yesterday.

Mr. THOMAS HONE in the chair.

Mr. KILDAHL (secretary) read the notice convening the meeting.

The report of the directors stated that, notwithstanding the unusual severity of the winter months, large cross-channel shipments of pyrites have been effected from Kingstown, and the deliveries by rail for home consumption have considerably exceeded those of any preceding half-year. The gradual approach to a healthier tone in the market, coupled with a coming advance in the price of foreign pyrites, induce the hope that this desideratum will ere long be realised. The exhaustion to a great extent of the stock of foreign ore, and the considerable decrease in its importation into the United Kingdom, encourage the belief that the demand for this company's produce will not be interfered with by foreign competition to the same extent as of late. The difficulty in procuring vessels to undertake voyages to ports in the Bristol Channel during the winter season at other than excessive rates of freight has prevented the shipment of iron ore to the desired extent; but since the closing of the half year, and the return of moderate weather, the shipments from Arklow towards the completion of large contracts have actively progressed, and it is to be hoped that during the approaching summer the company's operations in the despatch of this ore will be uninterruptedly carried on. Arising from the severity of the past season, and the prevalence of adverse winds, the bar at Arklow Harbour has been rendered unusually shoal—over which circumstance the company can possibly have no control, as the revenues from this portion of its property are insufficient to defray the expenses necessary for the maintenance of the pier, &c. The prospects of the mine continue encouraging, the ore is holding good in the deeper levels, and important tutwork operations have been undertaken in the past half-year, that will eventually tend to economise the raising cost of a large quantity of ore, and be of great future value to the mine. Out of the estimated profit of 4507l. 7s. 8d. for the half-year, the directors recommend a dividend at the rate of 20 per cent. per annum, being 5s. per share (or 4250l.), payable to the shareholders, free of income tax, on May 1, leaving the surplus (2907l. 7s. 8d.) to be added to the reserve fund.

The report of Mr. Edward Barnes (resident director) stated that all the machinery, shafts, levels, and surface works are in good order, and the late additions to the pitwork have strengthened and added to its efficiency. It is satisfactory to be able to state that the chief features in the prospects are encouraging; the ore is holding good in the deeper levels, and the tutwork generally has carried with it a fair extent of productive ground.

THE GOVERNOR AND COMPANY OF COPPER MINERS IN ENGLAND.

The annual general court was held at the Terminus Hotel, Cannon-street, on Wednesday.

Mr. LEWIS HARROLD HASLEWOOD, the Governor, in the chair. Mr. C. FRETWER (secretary) read the notice convening the meeting, and the minutes of the last were confirmed.

The report stated that the accounts for the year ending Jan. 16 exhibit a loss of 2144l. 11s. 11d. upon the year's operations, and a debtor balance increased thereby to 2373l. 10s. 10d. Very little beyond what has been said in previous reports can be adduced in explanation of this continued absence of profitable returns upon the capital and labour employed by the company. The costs of production have been reduced, and the sales have been effected at prices which would compare favourably with current market rates, but in no year since the company was formed has the company had so much to contend with from the adverse condition of the markets. With this latter circumstance fully in view, it may be considered a matter of congratulation that the loss sustained has been no greater. On this occasion the profit and loss account has not been seriously affected by the necessary re-valuation of stocks, but the expenditure upon the works beyond the cost of ordinary repairs has amounted to the sum of 4507l. 14s. 9d.; nearly one-half of that sum being due to the arrangement which was forced upon the company in 1867, and mentioned in the report of that year, having reference to the injury alleged to have been done by copper works to the outlay has been made, and has been comparatively unprofitable for so long a period, it would be better to cease carrying them on, and to withdraw the large amount of capital which is there locked up in property of a saleable description; but the Court of Assistants unhesitatingly deprecate such an extreme measure, as, in their opinion, it would involve a sacrifice unequalled for present circumstances, and would be pitiful only in the prospect of such a succession of disastrous years as would threaten to render that course ultimately inevitable.

The report of the auditors (Messrs. A. Beattie and E. P. Stringer) stated that the outlay in maintaining in a state of efficiency the works and plant at Gt. Ormeau has been, as usual, on the increase of the year; and besides this, the cost of some necessary additions to the collieries, iron mills, copper works, &c., during the year (amounting to 4507l. 14s. 9d.) has, in like manner, been charged against revenue. A large part of this outlay has been imperative in consequence of a lawsuit having been instituted against the company for alleged damage to some farms in the neighbourhood, by reason of the smoke from the copper furnaces, which action, having been disposed of by an amicable arrangement in February, 1867, by which the company were bound to provide a remedy within two years from the date thereof, this expenditure is a part of the cost of continuing the means of obtaining the objects which we believe that eventually this outlay will be otherwise productive in itself, as well as conducive to the settlement of a vexed question. Although the result of the year's operations will not admit of the payment of a dividend, almost every article manufactured by the company has been produced at a lower cost per ton than in the previous year, so that it is most disheartening to find that the markets have not admitted of the realisation of any of the articles at prices that would afford a divisible profit to the proprietors. After crediting the profits on the sales of the year, and deducting the expenses of the London office, the profit and loss account exhibits a balance at debit of 2373l. 10s. 10d.

The CHAIRMAN moved that the report and balance-sheet be received and adopted. Before proceeding to the discussion he would ask the secretary to read one or two letters which had been addressed by shareholders to the Court of Assistants upon the position and prospects of the company.

The SECRETARY thereupon read a letter received from Capt. M'Neill, which bore testimony to the energy and discretion of the Court of Assistants, and to the care and attention they had exercised in the conduct of the company's affairs; but urged that unless some powerful argument could be given in support of the future prospects of the company, the earliest favourable opportunity should be taken to realise the assets. A letter was also read from Mr. Talbot, which congratulated the company on the year's working. It is true that no profit was shown, but it was notorious that most of the manufacturing establishments in South Wales had been heavy losers during the past year.

The CHAIRMAN said that the Court of Assistants had discussed the propriety of suggesting the appointment of a committee of shareholders to confer as to the position of the company's affairs, and just before the meeting a shareholder met the Court upon that subject.—SIR MACDONALD STEPHENSON seconded the proposition, stating that their excellent Governor, who devoted considerable time and attention to the affairs of the company, suggested some time since that it would be satisfactory if a committee of shareholders could be appointed.

Mr. ALEXANDER BEATTIE, one of the auditors, said that Capt. M'Neill had undoubtedly expressed that which must be a very universal feeling among the proprietors of the company as to the result of the operations, but the remedy proposed was very questionable. He was glad to hear Mr. Talbot's letter read, because he had been under the impression that Mr. Talbot was not taking the great interest in the company which might reasonably be expected from one who

was so large a recipient of the rents and royalties paid by the company. There were many things which Mr. Talbot might do to assist the company, and he would be glad to see him join the committee of consultation.

The report and balance-sheet were received and adopted. The CHAIRMAN then moved that a committee of consultation be appointed to examine into the present state and prospects of the undertaking.—The resolution, being duly seconded, was put and carried unanimously. Messrs. G. Benson, C. Gwathorne, B. Pelly, A. Beattie, and E. P. Stringer were appointed members of the committee, with power to add to their number.

The CHAIRMAN then moved formally, "That in the Court of Assistants no vacancies which may occur otherwise than by rotation be filled up, until the members be reduced in number to the minimum prescribed by the Act—a Governor, Deputy-Governor, and five Assistants; and that for the year 1869-70 the remuneration of the Court of Assistants be reduced to 1500l."

Mr. A. BEATTIE moved, as an amendment, that the question be referred to the committee of consultation, which was put and carried nem con.

The retiring directors, Messrs. W. H. Hornby and B. B. Blade, were re-elected. Messrs. Beattie and Stringer were re-appointed auditors.

A vote of thanks was passed to the Governor and Court of Assistants, and also to Mr. Struvé, the manager. The proceedings then terminated.

ORINOCO GOLD MINING COMPANY.

A general meeting of the subscribers to the Orinoco Gold Mines Exploration Fund (Limited) was held, on Monday, at the office of the Central American Association, for the purpose of receiving the report of Dr. Le Neve Foster, who has returned to this country, and of determining upon further proceedings. It may be remembered that this was a small "pioneer" company, formed in the autumn of last year for the purpose of sending out a mining engineer of eminence to ascertain whether the accounts given by Dr. Piassard, the French Vice-Consul at Ciudad Bolivar, of the extraordinary richness of the gold districts of Caratal, in the province of Guayana, in Venezuela, were overcharged. Four hundred mines or claims, of 10,000 square feet each, had been obtained by M. de Meurville, formerly acting Consul-General for France in Venezuela, from that Government, which were offered to the company without any cash payment, a participation in profits being reserved to the concessionaires after securing 10 per cent. in the first instance to shareholders.

At the meeting a detailed and interesting report was presented by Dr. Foster, who had been sent out by the company, and who was himself present. He stated in his report that he "has no hesitation in saying that Dr. Piassard's general statements about the occurrence of gold are substantially correct."

Resolutions were passed for the immediate formation of a definitive company, to be called "The Orinoco Gold Mining Company (Limited)," to take up the shares of the company, and to elect a board of directors was nominated. It was further resolved that a limited number of shares only should be issued, and that the whole should be offered in the first instance for subscription to shareholders in the preliminary company.

IRELAND'S MINERAL WEALTH.—In order to mitigate to some extent the injustice of confiscating the property of the Protestant Church in Ireland, it is proposed by Mr. GEORGE ROBINSON, of Lamplugh, that, assuming the confiscation to be inevitable, the most effectual method of benefiting the people of Ireland would be to apply the money to the purchase by the Crown of the manorial rights of the landowners of that country, with a view to the better development of its mineral resources. The proposition is, without doubt, worthy of the attention of some of our leading statesmen, and is certainly free from two objections to the socialist project of Mr. Gladstone—it would not give rise to the jealousy and permanent ill-feeling that would be caused by the handsome endowment of one religion with the funds belonging to the church of another, and it would produce more general advantage than could be hoped for from relieving Ireland from the responsibility of supporting idiots and lunatics—the proportion of which is proved by published and official statistics to be larger amongst Catholics than amongst the followers of any other religion.

MINERS' ASSOCIATION OF CORNWALL AND DEVONSHIRE.—The vast amount of energy displayed by the executive of this Association in diffusing scientific knowledge amongst the working miners should suffice to enlist the sympathy and to secure the substantial support of all who are interested in or profit by the working of Cornish and Devon copper and tin mines. Under the auspices of the Association upwards of forty young miners are studying chemistry, mineralogy, and geology, and about fifty others are studying the rudiments of the same sciences in classes under the guidance of former students of the Association. Owing to deaths and removal from the country the income of the Association has been materially interfered with, and it is probable that unless the non-resident adventurers in the mines promptly exert themselves to place the council of the Association in possession of funds, there will be considerable difficulty in continuing those inducements to the teachers which have hitherto done so much to promote the success of the undertaking. As it cannot be doubted that whatever improvement in the working of the mines may result from the increased intelligence of the miners is returned to the adventurers in the shape of increased dividends or diminished calls, it may fairly be hoped that the present appeal of the council for financial aid will be cordially responded to by mine adventurers generally. The Report of the Association for the past year (just published by Mr. J. R. Netherton, of Truro) affords ample evidence of the value of their exertions. No less than eleven sound practical papers were read at the last meeting, and the titles of these are enough to show the extent to which they are suited to the wants of those to whom they are addressed. Thus, Mr. Hilary Baerman contributes a paper on the New Deep Adit in the Upper Harz Mines; Mr. Collins supplies Notes on Boring Machines, and on the Formation of Nuggets in Auriferous Drifts; Mr. Robert Oxland, on Dressing Tin Ore; and there were several other papers, on Dynamite, on a New Calciner for Roasting Tin, on Mineral Phenomena, and on other subjects of great general interest. The volume is well worth reading, as a record of ordinary mining progress.

PREVENTION OF SMOKE FROM FACTORIES.—The Manchester Steam Users' Association continue to exert themselves to enable their members to comply with the Smoke Prevention Act. In his report for the past two months, presented to the Executive Committee on Tuesday, Mr. L. E. FLETCHER, the chief engineer, states that the Association's trained stoker has visited nine of the members' works for the purpose of taking charge of the furnaces, with a view to the prevention of smoke. These visits have been attended with considerable success. The works visited have not been by any means favourable cases, on the contrary they have been attended with difficulty, and several of the owners made application for assistance, on account of the pressure put on them by the Smoke Prevention Act. In one case the boiler owner had been fined three times the amount of smoke emitted from his chimney; in another he had been summoned to appear before the magistrates, and in others he had been cautioned, and so on. In eight out of the nine cases the result of the stoker's visit was highly satisfactory. He succeeded, without any outlay upon the boilers, and simply by careful handling, in reducing the smoke so much that it could no longer be considered a nuisance or as indelicate, while in other cases only a faint breath remained, and this only half a minute or so after starting. In some of the boilers the fire doors were blind, whereas they should be always perforated, so that the trials conducted under these circumstances were made at a considerable disadvantage. In several boilers the fire-bars have been shortened with benefit. In one case the effect was tried of driving the engine with two boilers instead of three, and in another with one instead of two, when it was found that the consumption of fuel was the same, whether with the greater or lesser number of boilers in work. In one of the cases, however, the result was not as satisfactory as could be desired. Many of the members who have availed themselves of the trained stokers' visits have written acknowledging the advantage they have derived therefrom. It is the wish of the Association to assist those who feel themselves unable to comply with the requirements of the Act for the suppression of smoke nuisance, and also to prevent their being put to unnecessary expense for alterations of their furnaces. This the Association is now in a position to do, and to show its members as a body how to raise steam without smoke. Particulars have been taken of the boilers that have passed under review, and they will be issued to the members in a tabulated form, with an early monthly report. The experience the Association is acquiring is now rapidly reducing the whole subject of smoke prevention, including the treatment of fires, the proportions and equipment of the furnaces, &c., to a system, so that very shortly a code of instructions may be issued for the attainment of smokeless firing.

TECHNICAL EDUCATION, AND ENGLAND'S INDUSTRIAL PROGRESS.—At a meeting of the Inventors' Institute, on Thursday evening (Mr. Hume Williams, barrister-at-law, in the chair), an interesting paper, "On the Position of the Working Classes in regard to England's Industrial Progress and Defective Patent Laws," was read by Mr. Paterson, hon. sec. of the committee of the Working Men's International Industrial Exhibition, 1870. The lecturer pointed out that although there had been hitherto less facility for acquiring technical education in England than in other countries, there had been greater opportunity for applying knowledge to practical use. At the present time this state of affairs was likely to be reversed, for great attention was now being paid to technical education on the Continent, which must be met by similar efforts in this country. He urged that industrial exhibitions, and especially working men's industrial exhibitions, were an important aid to technical education, but that the benefit derivable from them was seriously lessened from the feeling entertained by working men that they had no protection for any invention they might exhibit—that their inventions could be immediately copied by others, without the real inventor deriving no advantage. He attributed strikes and similar disputes between masters and workmen to the dissatisfaction of the more intelligent of the workmen, arising from their being unable to protect upon the payment of a small fee whatever invention or discovery they might make. He considered that if our Patent Laws were amended, and made more liberal, the evil would be removed. An animated discussion followed the reading of the paper. Mr. John Murray, C.E., as an employer of a large number of hands, had frequently observed the indisposition of working men to make suggestions, and thought that by securing them the protection spoken of this would be prevented. He denied that the capitalist had any desire to deprive inventors of their rights, though capitalists naturally wished to see that there was some utility in an invention before paying for it.—Mr. Campin regarded it as an anomaly of our laws that copyright for a work of art was obtainable for 1s., whilst if it were for a work of utility—an invention—that similar protection was sought, the fee payable for only three years right was 25s.—Captain Selwyn observed that in any

amendment of the present Patent Laws that might be attempted especial care should be taken to give no protection whatever to crude ideas—It is crude ideas and not developed inventions that formed the obstacle to industrial progress. A member pointed out that it was the working men themselves who really invented their fellow-workmen from their inventions, and contended that it was little to do with the question. A resolution was ultimately passed for sending a deputation to the Premier, with a view to induce the Government to take active steps in the matter.

FOREIGN MINES.

ST. JOHN DEL REY.—Morro Velho, March 1: Morro Velho produce, 24 division of February, 11 days, 3289 oits.; yield, 1-626 oits. per ton. Gato produce for the above period, 271 oits.; yield, 0-847 oits. per ton.

DON PEDRO.—March 1: Produce cleaned to date, 15,819 oits.; estimated for month, 18,000 oits. The works have progressed with the usual regularity. Stopes yielded well, and some box work taken out. At Tambor we are pushing on with the exploration west, but as yet no gold. At Alice's east there is also a force stationed. The body of lode at this station is large, but not auriferous. To-day a Californian pump has been fixed in bottom of curve, in hope it will drain the water until the horse-engine is at work, and enable us to prosecute mining. The work in the mine and also at surface in connection with the horse-engine is being pushed on. At Treloar's level first-class duty has been performed at deep adit, notwithstanding troublesome and wet ground, progress made.

ANGLO-BRAZILIAN.—Since my last the attendance of force has materially improved, and a satisfactory amount of work has been accomplished, both in and out of the mine. In the features of the lodes no change worthy of note has taken place. The sinking of the shafts is being prosecuted with all vigour, and operations have been commenced at the Gongo Mine. The indications at Haymen's and Foster's continue promising.

ROSSA GRANDE.—Gongo Mine: Since the 18th inst. we have been obliged to suspend the sinking of the new shaft, having intersected some old workings. The air became suddenly so impure that it was impossible to continue with the works. Preparations are in hand to remove this dead air, and in a short time we shall be able to go on with our exploration here. All other works are progressing well, but do not call for particular notice. Mina de Serra: The feature of the lode at the points of progress is looking more favourable than it has for some time past. We have likewise been obliged to suspend operations below the 40 fathom level for want of pure air, owing to the sultry weather and a few thunderstorms. We have now commenced sinking a winze 10 fathoms west of shaft, in the 40 fm. level, to effect a communication with the 50 fathom level, which will give us all wanted ventilation. Mina Alto: Very little improvement is perceptible in the numerous quality of the stone, but I have no doubt the lode will prove of a higher gold percentage. Bahu Mine: The shaft we are sinking here is to all appearance very nearly touching the lode, and I am hoping we shall be able to examine same in a few days.

TAQUARIL.—Mr. W. H. Richards (Feb. 27) reports that operations are proceeding quite satisfactorily. "At the deep adit 3 fathoms have been driven in the cross-cut since my last, and we have now reached the south wall, where we have found the ground so favourable for driving that we anticipate being able to advance at the rate of at least 30 fathoms per month. Capt. Pengilly calculates on our having about 80 fathoms of this kind of ground, but that after that we shall find it getting gradually harder as we advance into the hill. The cross-cut through the lode is upwards of 10 fathoms in length; there are four horses, or struts, or pillars in it varying in thickness from 3 ft. to 1 ft. The north wall of the lode was not cut, being from 1 to 1½ fathom to the north of the adit. Capt. Pengilly, therefore, concludes that the lode is about 10 fathoms wide at this depth. Pengilly tried samples from various parts of it without discovering gold; as soon as the strakes are ready we can try more samples with greater facility than in the lode." They have an abundance of native labourers; and Messrs. Moore and Co. have advised the arrival of the steamer Humboldt, with 50 packages of goods.

IMPERIAL SILVER QUARRIES.—Lewis Chalmers, Feb. 21: I have already stated that I now expect to reach the Triumph about the middle of April. I am assuming that the ledge pitches nearly straight, and making some allowance for those repeated changes, which makes prediction as to time no easy matter. This last week we made 14 ft. of tunnel. Mount Bullion, 10; Globe, 6. Forest Belt stopped again. Michigan, 10.

CAPULA.—Capt. Paul, Feb. 26: To-morrow we shall finish sending to San Cayetano the first torta, 10 montons; they commenced grinding on Monday last, and will finish by the middle of next week. The next torta we intend sending 12 montons, which will take about a fortnight. We have 90 arrobas of salt at Valasco, that will be sent to San Cayetano on Tuesday next. The quicksilver we shall get at \$66 per quintal; sulphate of copper at \$14 per quintal. We are making as much progress as we possibly can with the hacienda of San Juan; our greatest difficulty is in procuring good masons. The Mine: Three Englishmen and nine natives sunk 1 vara in the shaft in the last fortnight, at \$220 per vara. In San Jorge rise and stope above the Esperanza the ground is much softer, consequently there is a larger quantity of (tierras) smalls, which is not of so good a quality as the rough. The assay of the torta will not be so high as the former tortas sent to San Cayetano or the metal sent to Sanchez. In winze No. 1, sinking below the Esperanza level, a little to the east of La Bomba shaft, there is a narrow branch of fair quality ore, with metal of lower grade on the other part of the lode. In the winze under San Jorge the water is gradually sinking; we expected it would have been drained by No. 1 winze; by drawing it out I think we might resume the sinking; in these winzes the ore is very rich, but narrow, but we expect it will widen in depth. There is a branch of good quality ore in San Onofre winze, below San Enrique level; the ground is very hard, as in all the winzes, and they only sink about ½ vara weekly; the lode is very promising, and we consider it will improve in depth; this winze will come down a little to the west of the engine-shaft, and will be very useful for a ladder-rail as well as for ventilation. Another winze sinking below the San Enrique level, on the south part of the lode, is looking very promising; it produces gossan and blue ore mixed. Like this point even better than the Esperanza. We have suspended the winze sinking in San Jose lode, west of shaft; the metal is of very good quality, without bronze, but the ground is uncommonly hard. We have put men to break ore east of La Bomba, under Enrique level. In San Enrique end we are driving through the cross lode, which is composed of gossan, with spots of blue ore; to the east of the cross lode we expect a change for the better. We intend putting 16 stamp-heads on side of the wheel and four barrels on the other, to be removed when the second wheel is in order, and to erect another stamp instead.

RHENISH CONSOLS.—George Sweet, April 2: In consequence of the shaftmen at Christiana being engaged the greater part of last month in fixing lift, &c., at the 20 fathom level, the depth sunk in March month did not exceed 4-10ths of a fathom, but now everything connected with the shaft is in good trim. We hope to make good progress in sinking. The end driving east at the 20 fathom level is still poor, but not without ore. The cross-cut driving through the lode near the western end, in this level, is still affording good lead ore. A stope to the east of Pittar's winze will afford 2½ tons of lead ore per fathom. The stope to the west of this winze will afford 1½ ton per fathom. A stope in the roof of the 10 fathom level, and west of Sweet's winze, will afford 1½ ton of lead ore per fathom. The adit end driving west has made no improvement. Bilbakh: The drive west, on the middle lode, in the 10 fathom level, has driven south some six fathoms in advance of this end, and found no ore yet; the end never presented a better appearance than now. The drive west, on the north lode, is poor. Nos. 1 and 2 stopes in the level of the lode, on the middle lode, will afford 1 ton of lead ore per fathom. A stope on the north lode, at this level, will afford ½ ton per fathom. A cross-cut is being driven north at the adit level on the copper lode in search of the missing lead lode; ground easy for driving. Estimated returns for March month—Lead ore, 550 centners, 1650 lbs.; blende, 60 centners, 60 lbs.—1710 lbs. Total cost on mines (exclusive of block), 1670 lbs.; profit, 40 lbs. Block, including work in Christiana shaft, 200 lbs.

PESTARENA UNITED.—Thomas Roberts, James Mitchell, Thomas Waine, James Roberts, April 2: We remit this day to office four ingots of gold, weighing 461 ozs. 18 dwts. 7 grs., obtained in the month of March from 681 tons of ore: 64 tons amalgamated at Pestarena yielded 191 ozs. 3 dwts. 11 grs.; 40 tons of inferior ore from Pestarena, amalgamated at Battiglo, yielded 118 ozs. 3 dwts. 18 grs.; and 447 tons of ore from Val Toppa, amalgamated at Piedimulera, yielded 242 ozs. 11 dwts. 2 grs. The remittance would have been greater had the weather been more favourable for the carriage of ore from Pestarena to Battiglo Mines to Battiglo establishment. In consequence of the snow on the Sierra, road we have not been able to bring down any ore from the Cane Mine for the past week. In the past week we have had a heavy fall of snow, amounting to Pestarena, with what was on the ground before, to a depth of 3 ft. 6 in. Weather is yet unsettled, but according to the rule of other springs we expect some time this month to have a change for the better, with an increase of water for the mills at Pestarena; at present working 80 only. Pestarena Mines: Aquavita: The lode in the end of the 46 south yields 7 tons of ore per fathom, estimated at 20 ozs. of gold per ton. No change in the cross-cut east in this level. The lode in the end of the 33 south yields 2 tons of ore per fathom, and is worth 15 dwts. of gold per ton. The stope in back of this level yields 5 tons of ore per fathom, worth 1 oz. 5 dwts. of gold per ton. The lode in the end of the 23 south yields 2 tons of ore per fathom, worth 10 dwts. of gold per ton. We have suspended the stope in back of this level, and put these men to sink to communicate to the stope in back of the 33, which will be effected some time this month. The lode at this point yields 4 tons of ore per fathom, worth 1 oz. of gold per ton. The stope in bottom of this level, south of winz-shaft, yield 4 tons of ore per fathom, worth 1 oz. 5 dwts. of gold per ton. And the stope in bottom of this level, north of engine-shaft, yield 5 tons of ore per fathom, worth 18 dwts. of gold per ton. The lode in the end of the 3 fm. level, driving south, is unproductive. At the adit the stope in bottom, near the boundary, yield 4 tons of ore per fathom, worth 17 dwts. of gold per ton. We have commenced a winze in bottom of this stope. The lode at present is poor, but we expect to meet the intersection of a lode cut in the cross-cut above in this sinking, where we anticipate an improvement.

Peschiera. The lode in the end of the 16 south yields 2 tons of ore per fathom, worth 10 dwts. of gold per ton. The stope in back of this level yield 4 tons of ore per fathom, worth 18 dwts. of gold per ton. The stope in the bottom of the 46, on No. 2 lode, yields 3 tons of ore per fathom, worth 18 dwts. of gold per ton. At this level, south of Bottom's, we have made a small discovery by driving on the slide to the intersection of No. 2 lode; the lode here yields 4 tons of ore per fathom, worth 14 dwts. of gold per ton. The stope in the back of the 55 yield 3 tons per fathom, worth 1 oz. of gold per ton. The lode in the end of the 70 north is poor at present. The stope in the bottom of this level yield 7 tons of ore per fathom, worth 1 oz. of gold per ton. The stope in the bottom of the 75 yield 7 tons of ore per fathom, worth 1 oz. 10 dwts. of gold per ton. Fair progress has been made in widening the level for the new pumping gear at the 65.—Battiglo Mine: During the past month we have been stopping at Piazza Nuova level, on the Cadorna lode, by six men; the stope yield 5 tons of ore per fathom, and re-commenced stopping at Cavetta level, on the side lode, by six men; this stope yield 5 tons of ore per fathom, worth 8 dwts. of gold per ton; the mine is about 60 tons; we estimate it to be worth 8 dwts. of gold per ton, hoping this month that we shall be able to bring it to the establishment for amalgamation.

Val Toppa Mine: The lode in the end driving south, above Marmo Rosso level, yields 2 tons of ore per fathom, worth 10 dwts. of gold per ton. The lode

in the end, driving north at Marmo Rosso level, yields 2 tons of ore per fathom, worth 15 dwts. of gold per ton. At No. 2, or Fisher's level, the end driving south from the inside cross-cut, on the new lode, yields 4 tons of ore per fathom, worth 17 dwts. 18 grs. of gold per ton. The lode in the end driving north from this cross-cut, on the flat lode, is small. The lode in the end driving north from same cross-cut, on the new lode, yields 8 tons of ore per fathom, worth 12 dwts. of gold per ton. The stope in back of this level yield 5 tons of ore per fathom, worth ½ oz. of gold per ton. The lode in the ends driving north and south from second cross-cut, on the new lode, yields 12 tons of ore per fathom, and a new winze sinking in this level yields 15 tons per fathom. We estimate the ore coming from these ends and winze to be worth ¼ oz. of gold per ton, and the stope in the side of the level, on the flat lode, yield 13 tons of similar ore per fathom. No change to report in the stope on the great quartz lode. At this level the 3d, or outer cross-cut, has not as yet reached the new lode, but we expect it will very shortly. At No. 3 level the lode in the end driving south continues to be promising. In the cross-cut east, at this level, we have intersected a small lode, and have commenced to drive south on it. In 12 metres driving we expect to reach the shoot of ore worked on in the back of No. 4 level. No change in the cross-cut west at No. 4 level. The end north from cross-cut, on a side lode, has reached the junction, as was calculated. We have commenced to drive south on this lode in more settled rock.

CAPE COPPER.—March 3: The superintendent being on business at Cape Town, no advices are at hand from Namaqualand. Bills of lading are received for 53 tons, per steamer, from Cape Town. The mining reports, &c., will be received by the regular mail, due here about the 23d inst.

MINING, METALS, AND MINERALS—PATENT MATTERS.

BY MICHAEL HENRY.

Patent Agent and Adviser, Memb. Soc. Arts, Assoc. Soc. Eng.

A patent has just been specified for improvements in apparatus for weighing, and also in cranes or lifting apparatus combined with weighing apparatus, communicated from abroad by PIERRE MICHAUD and LOUIS JOSEPH JAY, of Paris. In this apparatus a lever or beam is employed, which lever or beam, or the axis thereof, works on a knife edge or knife edges. One arm of the lever or beam carries the article or matter to be weighed, a tray, plate, pan, platform, or other support or holder for such article or matter being connected with or formed on the said arm. The other arm of the lever or beam carries, or is formed or furnished with, a counterpoise or a counterbalance weight. The lever or beam works, rocks, or oscillates on the knife edge or edges, and it or its axis is connected with, or works appliances which actuate, a pointer travelling over a graduated dial to indicate the weight. When an article or matter to be weighed is placed on or in the tray or other support formed on or connected with one arm of the lever or beam, the counterpoise or weighted arm swerves from the perpendicular, being, of course, pendulous; and, by the arrangements in connection with it, the lever or beam acts upon the pointer which indicates the weight on the dial. In order that the invention may be thoroughly understood, some arrangements are described by way of exemplification of its application. A weighing machine may be thus constructed according to this invention. The lever or beam working on the knife edge has on its axis, or on a part of the length of its weighted arm, a friction roller acting on a bent lever or arm, carrying a toothed segment in gear with a pinion on the axis of a dial pointer, so that when the weighted arm swings out of the vertical it works the pointer, which thereupon shows the weight. The lever or beam may be supported on a stand or standing frame, or it may be suspended on a pendant arm or frame. The invention may be applied to a steel-yard arrangement, thus:—One arm carries the counterpoise or weight, and the other is connected with and acted on by cranks arms working on knife edges, and supporting the tray, plate, or platform for receiving the article or matter to be weighed. In cranes or lifting apparatus combined with weighing apparatus, the latter is constructed according to this invention, and one arm of the lever or beam is weighted, or carries a counterpoise, as before, while the other arm is connected by a bar or rod working on a knife edge or knife edges with the jib or weight-supporting arm of the crane or lifting apparatus, which is jointed or articulated at its lower end, or made moveable, so that it may move or change its position as necessitated by the weight, its change of position acting through the connecting arm on the lever or beam, and causing the counterpoised arm thereof to work and transmit motion by the bent lever and toothed segment, or other ordinary transmitting contrivance, to the pointer on the dial.

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

CUDDRA.—A correspondent writes:—The splendid discovery made in this mine about six weeks ago in the bottom level (the 142) continues to open up westward very successfully. It is too early to speak yet of the full value of this course of tin, as the lode, which has varied elsewhere in size from 2 to 3 fms. wide, has only been cut into a few feet at most. To show somewhat of its value, it will be sufficient to state that during the four weeks there was taken out of this level only 14 driving and sinking the lode for 5 or 6 fms. in length, without any stopping whatever, 16 tons of tinstuff. If this discovery had been made in some mines better known in the market it would have raised the price of shares many pounds. However, a short time only will be necessary, it is thought, to show by the returns (which is generally the best criterion) the true value of this important property.

TIN MINING ON DARTMOOR.—Operations have again commenced at the celebrated Old White Works Tin Mine, near Prince Town, and there is every prospect of good returns being shortly made by the spirited proprietors. The machinery for stamping and round boulders for dressing the tin are all of the newest and most improved description. The re-working of this mine has long been looked for by many of the Dartmoor tin miners, to whom it will prove a great boon. There is a large quantity of tinstuff already at surface, which will soon be in the market. The mine has been started by a London company. Mr. H. Barton is the managing director, as well as a very large shareholder.

SOUTH CONDURROW.—In accordance with the advertisement published in the Mining Journal, 345 shares in the South Condurrow Mine were offered for sale in various lots in the Court of Stannaries, at Truro, on Wednesday. The prices realised were for 55 shares 11. 11s. 6d. (the reserved price fixed by the Court); for 40 shares, 11. 13s.; and for 20 shares, 11. 13s. 6d.; to these prices 2s. per share must be added for the street call, which is payable according to the conditions of sale. The remaining share bought in by the Court for the reserved price and it is presumed that they can be purchased of the Registrar at that price by private contract.

ABERDAUNANT (Llanidloes).—A letter just to hand, from a gentleman thoroughly acquainted with mining in all its practical parts, now in the district, who has examined this mine, fully confirms the report which appeared in last week's Journal. He says:—"I find the mine much improved since I visited it a few days ago, and the prospects are most encouraging; 4 tons of good lead ore has been extracted, by two men only, from the opening in the hill side. The work we are now doing will enable us to get a much larger quantity at a smaller expense, and if the vein continues to open in a way in ore, especially if it is a good bunch of lead is met with in the VAN LOBE, in a winze sunk only 3 or 4 fathoms below the deep adit; operations to drain this are in force." This improvement will give stability to the value of this property.

GREAT WHEEL VOR.—The important discovery which, so far as seen at Edward's, on the western portion of the mine, has been stated as a rich course of tin, should it continue to improve, of which there is but little doubt, cross-cuts can easily be put out a short distance to intersect this rich lode in other levels. In connection with the Old Vor cross-course, which passes in this direction, it should not be lost sight of, that the "Old Vor Mine" returned something like 2,500 dwts. of tin, and gave enormous profits, so that about this same cross-course, which traverses across Edward's part, may be the means of again revealing a similar amount of wealth to the "Old Vor" part. Other parts of the mine are improving, and the sale of tin ores in a few days will realise about 800, per ton, on about 5 tons—say 40000, which in all probability will leave a profit for the month of about 14000, to 15000. This will be more than double the profit which was made a few months ago.

NANGLES.—The prospects here are said to be most encouraging; they are looking better than they have done for the past year or more, especially for tin. Much interest is felt in the end of the lode in the 130 fm. level cross-cut being met with, this may become one of the richest mines in Cornwall. **NORTH LEVANT.**—The reports continue to be of a very favourable nature, and the profit for the six months ending June will be very satisfactory to the shareholders. It is said the mine never looked better than at present.

[ADVERTISEMENT.]

From Mr. EDWARD COOKE: The favourable state of the Tin Market has caused a good demand to exist for shares in tin mines, and there is great difficulty in executing buying orders at anything like reasonable prices. GREAT VON shares, and shares in several other mines, have experienced a considerable rise in price. NEW LOVELL shares, on the other hand, have receded, owing to the rather disappointing state of accounts, although the balance of assets over liabilities is 1947. It must be remembered that the new stamps that have been erected have caused some interruption to the workings, and, as will be seen by the manager's report to the meeting, the last sale of tin did not contain the whole produce of the month. The mine has improved in the 40, east of Lantons' shaft, and in the 30, east of Colonel's shaft. At the next meeting of the West GREAT WORK COMPANY a dividend of 2s. or 3s. will, no doubt, be declared. The manager very wisely abstained from selling their tin for some time. The result of this will be a profit of about 1500, upon the stock of tin more than would have been realised if sold two months since. The adjoining mine, SOUTH GREAT WORK, promises to be equally successful. The shares are now only a few shillings each. At EAST NEW LOVELL the new shaft is going down in a beautiful channel of ground, and the prospects of an early discovery of tin are very great. I know of no young tin mine in Cornwall, where the chances of success are so good. The prospect of a new mine will be issued next week, by the public will be enabled to judge of the merits of this fine property. The number of shares is 3000, of 5s. each (limited); of this 44 will be called up on application and allotment. The purchase money is 90000, in 1000 shares, with

44, paid and 50000, in cash. The property has been estimated at much over the above amount by an independent party (the manager of very large lead mines, paying regular dividends), therefore the company will acquire the mine at a very reasonable price. From my own knowledge of the property I feel very confident it will prove a great success in every sense of the word. I remember that West Olverton shares were first introduced to the public at 29s. per share, in the same number as the Great Rock—3000 shares—and they are now 52s., and have been up to 80s. I think it is highly probable that Great Rock shares will see a high price, entirely on their intrinsic merits. The reports of all the agents who have inspected the mine concur in the testimony of its being a valuable property. A large number of the shares (in addition to the vendors' shares) have been applied for privately. The secretary to the company is also the secretary of the VAN MINE. The latter mine continues to open up splendidly, and is daily adding to its immense reserves of lead. The latest reports from the mine are of the most satisfactory character. The shares have been in good request by parties who regard them as a good investment that will give steady dividends for many years to come. At NEW TAMAR I am informed that there are 30 men raising lead at an average tribute of 5s. in 20s. The prospects are said to be very good.

HOLLOWAY'S PILLS AND OINTMENT.—For all skin diseases, however inveterate, these medicines are a sovereign remedy. While the ointment passes through the pores of the skin, as water saturates the soil, or as salt permeates meat, the pills act upon the blood, which they correct and purify. The whole physical machinery is thus rendered healthy, regular, and vigorous. The cure thus effected is not partial and temporary, the disease is entirely and forever driven from the system, and the patient need not be apprehensive of its return. As these medicines have no violent action they do not necessitate any interruption of ordinary avocations. They are composed of rare balsams, and may safely be given to young children and delicate females.

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Practical Geology.—King's College, London. **PROF. TENNANT, F.G.S.,** will give a COURSE OF LECTURES ON GEOLOGY, having especial reference to the application of the Science to ENGINEERING, MINING, ARCHITECTURE, and AGRICULTURE. The LECTURES will COMMENCE on FRIDAY, April 9th, at Nine o'clock, and be continued on each succeeding Wednesday and Friday, at the same hour, at 8½, 11s. 6d. Professor TENNANT accompanies his students to the Public Museums, and to places of Geological Interest in the country. He also gives PRIVATE INSTRUCTION in Mineralogy and Geology at his residence, No. 149, Strand, W.C.

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ABRIDGED PROSPECTUS.

The object is to employ machinery on the Thames Gold Field. It is easy of access, and the reefs contain an amount of gold exceeding any ever recorded—15 out of 700 square miles, auriferous, are only yet occupied. Authentic information states that out of the 1600 claims upon the gold field, only 50 have machinery, but the miners, said to be 15,000, knock out the gold with hammers, and an instrument like a paviour's rammer.

Manukau Claim realised 356 ozs. from 25 tons of stone; Kelly's Claim, 8307 ozs. in five weeks' crushing; Held's Claim, 75 ozs. from 10 tons of quartz; Golden Crown Claim realised 2524 ozs. from 97 tons of stone; Lucky Hit Claim, 77 ozs. from 1 cwt. of stone; Prince of Wales yielded at the rate of 20 ozs. to the ton; Slink to Rise, 80 ozs. from 1 cwt. of stone; Just in Time, 8 ozs. from 2 cwt. of stone; Tapa Gold Mining Company, 32 tons yield 113 ozs. refined gold. The yield of 5 cwt. of stone from Golden Crown Claim was 2000 ozs. A bet is made that 5000 ozs. of gold will be got out of a ton of stone from this claim, &c.—See Daily Southern Cross, Nov. 2, 1868.

From Hunt's Claim the yield of 1500 ozs. was obtained from 16 hours' crushing and in four days the out-turn was 5207 ozs.—See Money Article of the Times, Oct. 1, 1868.

There are thousands of tons of stone lying waiting for machinery.—New Zealand Herald, Nov. 2, 1868.

WATSON BROTHERS' MINING CIRCULAR

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MESSRS. WATSON BROTHERS return their most sincere thanks for the great patronage bestowed and confidence reposed in their firm for 25 years, and to assure their friends and clients it will be their earnest endeavour to merit a continuance of both.

Messrs. WATSON BROTHERS have made arrangements for continuing their weekly Circular, which has had a large circulation for many years, to the columns of the *Mining Journal*, their special reports and remarks upon mines and mining, and state of the share market, will in future appear in this column.

In the year 1843, when Cornish mining was almost unknown to the general public, attention was first called to its advantages, when properly conducted, in the "Compendium of British Mining," commenced in 1847, and published in 1849, by Mr. J. Y. WATSON, F.G.S., author of "Gleanings among Mines and Miners," "Records of Ancient Mining," "Cornish Notes" (first series, 1869), "Cornish Notes" (second series, 1869), "The Progress of Mining," with statistics of the Mining Interest, annually for 21 years, &c. &c. In the Compendium, published in 1849, Mr. WATSON was the first to recommend the system of a "division of small risks" in several mines, ensuring success in the aggregate, and Messrs. WATSON BROTHERS have always a selected list on hand. Perhaps at no former period in the annals of mining has there been more peculiar need of honest and experienced advice in regard to mines and share dealing than there is at present; and, from the lengthened experience of Messrs. WATSON BROTHERS, they are emboldened to offer, thus publicly, their best services to all connected with mines or the market, as they have for so many years done privately, through the medium of their own Circular.

Messrs. WATSON BROTHERS transact business in the purchase and sale of mining shares, and other securities, payments of calls, receipt and transmission of dividends, obtaining information for clients, and affording advice, to the best of their knowledge and judgment, based on the experience of more than 30 years active connection with the Mining Market.

Messrs. WATSON BROTHERS also inform their clients and the public that they transact business in the public funds, railway, docks, insurance, and every other description of shares dealt in on the Stock Exchange.

Messrs. WATSON BROTHERS are also asked their opinion of particular mines, as well as to recommend mines to invest or speculate in, and they give their advice and recommend mines to the best of their judgment and ability, founded on the best practical advice they can obtain from the mining districts, but they will not be held responsible, nor subject to blame, if results do not always equal the expectations they may have held out in a property so fluctuating as mining.

Messrs. WATSON BROTHERS having agents and correspondents in all the mining districts, and an extensive connection among the largest holders of mining property, have the more confidence in tendering their advice on all matters relating to the state and prospects of mines and mining companies, and are able to supply shares in all the best mines at close market prices, free of all charge for commission.

SATURDAY.—Market rather quiet. East Grenville declined to 51. Grenville, 51s. to 52s.; Prince of Wales, 21s. 6d. to 22s. 6d.; West Basset, 35s. to 40s.; Chontales, 13s. to 14s.; West Chiverton, 51s. to 52s.; West Frances, 51s. to 52s.

MONDAY.—Market active for tin mines. Providence, Great Vor, West Frances, West Basset, Prince of Wales, and Frontino in good demand, at an advance. Providence, 41s. to 42s.; Great Vor, 18s. to 19s.; West Frances, 55s. to 57s.; West Basset, 35s. 6d. to 42s. 6d.; Prince of Wales, 22s. to 23s.; Frontino, 19s. to 20s.; Grenville, 52s. to 54s.; Uny, 33s. to 34s.; Tincroft, 19s. to 20s.; Chontales, 13s. 6d. to 14s. 6d.; East Grenville, 51s. to 52s.; Taquaril, 11s. to 12s.; Don Pedro, 41s. to 42s.; General Brazilian, 15s. 6d. to 16s. 6d.

TUESDAY.—Active demand for Grenville, East Grenville, West Frances, West Basset, Tincroft, Redmoor, Drake Walls, Great Vor, Buller, Kitty (St. Agnes), and Prince of Wales. Grenville, 54s. to 56s.; East Grenville, 53s. to 55s.; West Frances, 55s. to 57s.; West Basset, 2s. to 24s.; Tincroft, 19s. to 21s.; Redmoor, 25s. 6d. to 4s.; Drake Walls, 30s. to 22s. 6d.; Great Vor, 19s. to 20s.; Buller, 14s. to 16s.; Kitty (St. Agnes), 54s. to 6s.; Prince of Wales, 23s. to 25s.; Agar, 28s. to 30s.; Crebore, 10s. to 12s. 6d.; Chiverton, 53s. to 55s.; Frontino, 19s. to 20s.; Chontales, 13s. to 14s.; Taquaril, 11s. to 12s.; General Brazilian, 15s. to 16s.; Don Pedro, 42s. to 44s.

WEDNESDAY.—Market very active for shares in tin mines, at advanced prices. West Frances, 55s. to 57s.; Grenville, 54s. to 56s.; Drake Walls, 19s. to 21s.; Tincroft, 19s. to 20s.; Great Vor, 18s. to 19s.; Uny, 33s. to 34s.; East Grenville, 51s. to 52s.; West Basset, 2s. to 24s.; Providence, 40s. to 42s.; Prince of Wales, 23s. to 25s.; Frontino, 19s. to 21s.; Chontales, 13s. to 14s.; Taquaril, 11s. to 12s.; General Brazilian, 15s. to 17s.

THURSDAY.—Market again active for Grenville, East Grenville, West Basset, West Frances, Crebore, Redmoor, Drake Walls, and New Lovell. Great Wheal Vor receded to 17s. 6d.; Grenville, 53s. to 55s.; East Grenville, 52s. to 54s.; West Basset, 17s. to 23s.; West Frances, 55s. to 58s.; Crebore, 10s. to 13s. 6d.; Redmoor, 4s. to 6s.; Drake Walls, 21s. to 23s.; New Lovell, 23s. to 24s.; Frontino, 18s. 6d. to 19s. 6d.; South Grenville, 4s. to 6s.; Buller, 17s. to 20s.; Seton, 70s. to 75s.; West Seton, 200s. to 210s.; Chontales, 13s. to 14s.; Don Pedro, 43s. to 45s.; Taquaril, 11s. to 13s.; General Brazilian, 15s. to 17s.

FRIDAY.—Market rather quiet, and prices about the same as yesterday. Prince of Wales, 23s. to 25s.; West Basset, 17s. to 23s.; Grenville, 52s. to 54s.; East Grenville, 51s. to 53s.; Frontino, 18s. 6d. to 19s. 6d.; Buller, 17s. to 20s.; West Frances, 55s. to 58s.; Great Vor, 17s. to 18s.; Don Pedro, 43s. to 45s.; Chontales, 13s. to 14s.; General Brazilian, 14s. to 16s.

PRICES OF MATERIALS.

As charged at the PROVIDENCE MINES during the following months:—

Description.	Oct.	Nov.	Dec.	Jan.
Common iron..... per cwt.	8s. 0d.	8s. 0d.	8s. 0d.	8s. 0d.
Hoop ditto.....	12 0	12 0	12 0	12 0
Borer, cast steel.....	30 0	30 0	30 0	30 0
B. B. ditto.....	40 0	40 0	40 0	40 0
5-in. patent nails.....	19 0	19 0	19 0	19 0
4½-in. ditto.....	19 6	19 6	19 6	19 6
3½-in. ditto.....per 1000	6 0	6 0	6 0	6 0
2-in. ditto.....	4 8	4 8	4 8	4 8
Steel-point shovels.....per cwt.	48 0	48 0	48 0	48 0
Wine kibbles.....each	11 0	11 0	11 0	11 0
Sheet lead.....per cwt.	30 0	30 0	30 0	30 0
Leather.....per lb.	1 8	1 8	1 8	1 8
Norway timber.....per foot	8 0	8 0	8 0	8 0
M. C. coals (contract), per ton	11 9	12 0	11 9	11s 9d
Best Candles, free, p. doz.	5s 6d & 6s 3d	6 3	6 3	6 3
Tallow, ditto.....per cwt.	51 6	51 6	51 6	51 6
Engine oil, ditto.....per gallon	3 9	3 9	3 9	3 9
Powder, ditto.....per 100 lbs.	33 0	33 0	33 0	33 0
Safety fuse, ditto.....per coil	4 0	4 0	4 0	4 0
Hemp, ditto.....per lb.	5½	5½	5½	5½
White yarn, ditto.....	5½	5½	5½	5½

PETROLEUM.—Mr. Felix Foucon, C.E., having, in 1866, visited the petroleum regions of North America for scientific purposes, has now published the results of his researches. Speaking of the oil springs at Petrolia, in Upper Canada, he states that a hole having been bored to the depth of 377 ft. on one of the banks of a stream, the pressure of the gas which is generally set free by this process caused the oil to spring up to a considerable height above the level of the soil, not in a continuous jet, but at regular intervals. The gas of the place called Burning Springs, just above the Niagara Falls, issues in bubbles from a sulphurous spring, arising from a stratum of red and green Medina grit-stone, which rests on the schists of the Hudson formation; it is this latter bed which yields all the inflammable gas. At Pioneer Run, Pennsylvania, there are two Artesian wells, not more than 60 feet distant from each other; here the gas is separated from the oil by means of seed bags, so as to bring each of these substances to the surface through different channels. The gas of one of the wells burnt with a fine clear flame, while that of the other, on the contrary, yielded a smoky and sooty one. The township of Fredonia, in the State of New York, is entirely lighted with the natural gas issuing from a depth of 80 feet.

The want of crushing machinery suited to the peculiar fineness of the gold is at present the greatest drawback to the progress of this field, but only second to it is the insufficient number of any sort of machines that will save gold.—Southern Cross.

The Shortland Times, Dec. 24, says hundreds of thousands of tons of quartz are piled in all directions, waiting for machinery.

To supply this demand for machinery, and to work for the miners, and crush at per ton, or the rate ruling at the mines, and also on the usual terms of sharing the profits, is the object in view, for which purpose the directors have engaged a gentleman of high character, well experienced in Australian gold mining, who has agreed to make his remuneration entirely depend on success, by accepting a proportion of fully-paid shares, and a small percentage on the profits.

Advantages are freedom from risk or speculation, and lowest estimate of profits is shown to be 75 per cent. See full prospectus.

An engineer of character and ability, and 17 years' experience in quartz crushing and gold refining, has been provisionally engaged.

Complete prospectuses, forms of application, and manager's plan of operations, can be had by applying to the brokers, Messrs. POWER and DAVIS, or to the Secretary, at the temporary offices of the company, 28, Moorgate-street, City. JOSEPH SIMPSON, Secretary.

Mining Correspondence.

BRITISH MINES.

BEDFORD UNITED.—J. Phillips, April 6: The engine-shaft is now 11 fms. below the 190, and good progress is being made in sinking. There has been no lode taken down in the 90 east or west for the last three weeks. The lode in the 75 east is 4 ft. wide, and producing full 5 tons of ore per fathom; a very promising lode. The stopes throughout the mine continue to yield from 4 to 5 tons of ore per fathom.

BRELFORD.—T. Kemp, April 7: The cross-cut south from the main driftage at the west of new shaft, is opened into the ore-bearing part of the lode 3 ft., and it is worth for that length over 3 tons of lead ore per cubic fathom. Old Shaft: The 52 fm. level end west, on the south lode, is producing fully 15 cwt. of lead ore per fathom; should this discovery continue on for some length it will greatly enhance the value of the mine. All other bargains are without alteration to notice.

CAPE CORNWALL.—R. Pryor, John Davey, April 3: We have to-day set the following bargains:—The 100 cross-cut to drive north of engine-shaft, by four men, at 13s. per fathom; the ground is hard and spar progress, being intermixed with spar, muddle, and spots of copper ore, indicating that we are near a lode. The 70 cross-cut to drive south of engine-shaft, by four men, at 13s. per fathom; this end is letting out a little water, and in a beautiful channel of mineralised ground; these two points are being pushed on with all possible speed.

CARADON CONSOLS.—S. Bennett, April 6: The ground in the south shaft below the 78 continues good. There has been no lode taken down in the 78 west during the week; there seems to be no portion of change in the capels around it. The 78 east, on the same (gossan) lode, is about 1½ ft. wide, and much the same character as on the west side of the cross-cut. The north cross-cut is now passing some sparry branches, which makes the ground somewhat harder.

CERN BRWYN.—Jas. Paul, April 6: I have this day forwarded by rail a few tons of lead ore from the 56 east; the lode here, I am glad to say, is steadily improving, and now worth 1 ton 15 cwt. of lead ore per fathom. All other points are looking much the same as when last reported on.

CENTRAL MINERA.—W. Davies, April 3: The 50 yard level west is in easy ground, and yields occasional stones of lead. The rise in the back of this level has communicated with old workings, and is suspended. The pitch in bottom of the level is worth 5 cwt. of lead per fathom. I am daily expecting to cut into a more productive lode, and am disappointed. We have not discovered it before now; the ground is very encouraging.

CENTRAL SNAILBEACH.—J. Kito, April 2: In my report, dated March 15, I stated that we have got through the lode in the 200 yard level cross-cut, and in driving west on course of same we have discovered that this is not the case, but that there is still more lode standing to the north. I have put the men to cut through it until they find the proper wall, and when this is done will again report prospects. The lode is very strong and masterly, and contains spots of lead ore, and I should not be surprised to find it much richer on reaching the hanging-side, which in the level above invariably carried the ore.

CHIVERTON MOOR.—G. E. Tremayne, Wm. Bennett, April 3: The engine-shaft to sink below the 85, at 25s. per fathom, by twelve men. The 85 to drive east of the engine-shaft, by six men, at 3s. per fm.; lode 18 in. wide, composed principally of loosan, with quartz and muddle. The 85 to drive west of the engine-shaft, by six men, at 3s. per fm.; lode 4 feet wide, and looking very promising for an improvement. We have commenced to drive the 75 west on the north part of the lode, which at this point is 3 fms. north of the former drive, by four men, at 3s. 10s. per fm., and 7 fms. of lead per fathom. No. 1 stope in the back of the 75 west, by six men, at 11s. 18s. per fathom; lode worth 10 cwt. of lead per fathom. No. 2 stope, by six men, at 11s. 10s. per fm.; lode worth 7 cwt. of lead per fathom. No. 3 stope, by six men, at 11s. 18s. per fm.; lode worth for lead 5 cwt. per fathom. The winze in the bottom of the 65 west is being communicated with the 40 fm. level cross-cut, to drive south of Clogg's shaft, by six men, at 10s. per fm.; ground still favourable, but nothing of importance to notice has been intersected at this level since our last advice. Our pay and setting have passed off satisfactorily.

CUDDEA.—A. Cundy, April 7: In the 142 our prospects continue good, but the north part of the lode is exceedingly sparse for progress, consequently our advance in so short a time as a week is very little. As stated in our last, it will take us some weeks to cut out the lode in order to speak of its size and value. At this place we are raising good work for tin. In the other parts of the mine there is no change to notice. We sold on the 25th of last month 23½ tons of tin, realising 1882.

CWM ERFIN.—April 6: We continue to drive the 20 fm. level, east of the boundary; the lode in this end is 1 ft. wide, composed of a light clay-slate, veins of spar, and spots of muddle. The various stopes over the back of the deep adit level, in which we have 16 men employed, are turning out well; the lode varies from 1 to 3 yards wide, and will yield on an average 1½ ton of lead ore per fm. The lode in the rise over the back of ditto, 45 fms. east of the boundary, is 6 ft. wide, and worth 15 cwt. of lead ore per fathom. The lode in Taylor's drift, going west from the rise over the back of the deep adit level, is 18 in. wide, composed of killas, branches of spar, and spots of muddle. The lode in the same level, which is being driven east of the boundary, is 4 ft. wide, and carrying a branch of quartz and muddle on each wall of the lode about 3 in. wide. The lode in the stope in the bottom of Taylor's shaft, 10 fathoms west of Roberts's winze, is 1 yard wide, and worth 15 cwt. of lead ore per fathom. The lode in the stope in back of ditto, 35 fms. east of the boundary, is 4 ft. wide, and worth 10 cwt. of lead ore per fathom. Williams's level is being driven forward into the hill, in lode 2 ft. wide, containing killas, quartz, and spotted with muddle; the walls of the lode are very flat, and bearing too much north to be productive for lead ore. The lode in the stope in the bottom of Williams's level is 18 in. wide, and worth 12 cwt. of lead ore per fathom. The lode in the stope over the back of ditto is 4 ft. wide, and worth 15 cwt. of lead ore per fathom. The cross-cut is being driven north in this level, by four men, but nothing has been met with of any value.

EAST CARN BERR.—I. Richards, April 7: The lode at Thomas's engine-shaft is 2 ft. wide, composed of capel, quartz, muddle, and good stones of tin and copper ore.—Thomas's Engine-shaft: No. 3 Lode: In the 90 west the lode is 2 ft. wide, and worth 1½ ton of copper ore per fathom. The lode in the 80 fm. level east is 20 in. wide, consisting principally of quartz, with a little copper ore. The 80 west, and west of Davies's cross-cut, is suspended to admit of a rise being put up in the back thereof. The lode in this rise (Hocking's) is 18 in. wide, and worth 1 ton of copper ore per fathom. The lode in Morcorne's winze, in bottom of the 60 fm. level, west of Buckley's shaft, is worth 4 tons of copper ore per fathom.

EAST GUNNISLAKE AND SOUTH BEDFORD CONSOLS.—J. Bray, April 7: We have cleared up Impham shaft to a depth of 3 fathoms below the adit, and find the lode in the eastern end thereof is all taken away. In the western end of the same it is 6 feet wide, composed of spar and peach, producing good stones of yellow ore. No other change to advise you of since my last.

EAST PROVIDENCE.—J. Nancarrow, W. White, April 3: The following work was set to-day:—Boorman's shaft to sink below the 122, by six men and three boys, at 22s. per fm. The 122 to drive on the eastern side, by six men, at 12s. per fm. The 106 to drive north, by four men, at 8s. per fm.; lode large and tinny, and is expected to improve. The rise above the 106 is communicated with the winze below the 94, by which means the bottom of the mine is well ventilated. The 70 to drive east, by four men, at 6s. 10s. per fm.; lode continues tinny, and is opening up valuable ground. The 60 to drive east, by two men, at 3s. per fm.; this end is now just getting into the lode east of the cross-course. The 50 to drive east, by two men, at 8s. per fm.; and opening tribute ground. We have also set seven pitchers, by 11 men, at 7s. 6d. per fm.

EAST RISEWARNE.—U. Glasen, April 1: In King's shaft, sinking below the 115, the lode is 12 in. wide, producing stones of copper ore, but not to value. In the 115, west of shaft, the lode is 18 in. wide, worth 7s. per fathom. Two stopes in the back of this level are worth 6s. per fathom each. In the 115, east of shaft, the lode is 18 in. wide, worth 4s. per fathom. One stope in the back of this level is worth 8s. per fathom. In the 105, west of shaft, the lode is 10 in. wide, composed of spar, muddle, and copper ore. The rise in the west end of the rise, over this end, is worth 8s. per fathom. In the rise in the back of the

105, east of shaft, the lode is 10 in. wide, worth 4s. per fathom. One stope in the back of this level is worth 5s. per fathom. In the 95, east of shaft, the lode is 12 in. wide, worth 3s. per fathom.

EAST SNAKELL.—W. H. Rowe, April 6: We have now a very favourable change in the 35 end south, ½ fm. from shaft. In cross-cutting we prove the lode we have intersected a kindly branch of sugary spar with black and lead, which will join the other part of the lode a few yards further south. The appearances are, at any rate, strongly in favour of continuing this driving for the present. The shaft is now 12 ft. below the 35; the leading part of the lode, on the footwall, is about 1 ft. wide, composed of quartz, carbonate of lime, blende, and lead. This improvement is just now confined to the south end of the shaft, but appearing to extend gradually northwards as we sink. From the fact of the unfavourable floors of ground wearing out in depth, there is every encouragement to prosecute the mine with the utmost energy, and I feel confident the result will ultimately be satisfactory to all concerned.

EAST WHEAL GRENVILLE.—G. R. Odgers, W. Bennett, April 7: The 120 east is worth 1 ton of ore per fathom. There is no change in the 110. The lode in the rise above this level is worth 10s. per fathom. The lode in the rise above the 95 is worth 1½ ton of ore per fathom. The 85 is without change. In the 75 there is a very promising lode, worth fully 1½ ton of ore per fathom. In the 65 the branches are fast converging, and we think we shall have a course of ore here in a few days. The lode in the 55 is improving fast; the ground is getting softer, and exactly like the ground which we had just before meeting with the last bunch of ore; the lode will now produce more than 2 tons of good ore per fathom. The pitch in the back of this level is worth fully 30s. per fathom. A splendid lode. We have commenced to drive the 45, east of rise, where we are happy to say there is a fine lode, worth 2½ tons of ore per fathom. The 25 fm. level cross-cut is driven 4 fathoms; ground very favourable. On the whole, the mine has improved since our last report, and we are sanguine as to the future.

EAST WHEAL BEETH.—T. Uren, April 7: The mine is looking well, and we are breaking some good rocks of tinstuff. On Saturday last we brought to surface some rocks of tin, as much as two tons could lift, and some of it very rich. We did not sample any tin last week, but shall do so very shortly.

EAST WHEAL RUSSELL.—W. Richards, April 8: In continuing the shafting at the eastern part of the sett we have intersected some more elvan: I presume it is a limb of the large elvan course recently passed through. There is no alteration in the character of the north, or middle lodes, east of the Tunnel, since my last report. We have commenced to search for shoddy Impham lode, which is now, I am informed, 10 ft. wide in Wheal Russell adit level, driving towards this sett, and producing 6 tons of yellow copper ore per fathom; this should be considered a favourable fact for the interest of this company, and as this lode must come into the north-western part of this sett for a considerable length, it ought to be a sufficient inducement to work that part with vigour.

EBURY.—W. Kito, April 7: We have a hole through to the old works, and shall clear the stuff and commence to cross-cut at once: we could not possibly do so before we holed the rise, as the air, although we did work the machine, was fearfully bad. At any rate, we shall be ready to commence the cross-cut by Monday morning, and will keep you advised of any change.

FRANK MILLS.—J. Cornish, F. Cornish, M. Addams, April 7: We have intersected another branch of the lode, about 140 yds. from the south capel, and the north end, and the ground has become rather easier. This branch is 1 ft. wide, consisting of white iron, and letting out water. The east lode, in the 145 south, is improving in appearance, but unproductive of lead ore to value. The stope in the back of this level, on same lode, north from main cross-cut, is producing fully ½ ton of lead ore per fathom. There is no change in the 130 cross-cut east since our last report. The lode in the 84 north is 1½ ft. wide, producing ¾ ton of lead ore per fathom. The lode in the rise behind this end, which is up about 5 fms., is also producing ¾ ton of lead ore per fathom. The 72 north end, on Hancock's lode, is unproductive, but the stope in the 60 end, driving south, has a most promising appearance, but it is unproductive of lead ore to value. The two stopes in the back of this level are yielding respectively ½ ton and ¼ ton of lead ore per fathom. Our tribute department is without any particular change to notice, and a similar remark will apply to all other parts of the mine. We sampled on Saturday last 185 tons of silver-lead ore, being the last sampling for the current quarter.

GAWTON COPPER.—G. Rowe, June, April 3: In the 82 cross-cut, north from King's shaft, we have passed through the south capel, and the centre part of the lode, which is 9 feet wide, being principally composed of muddle, impregnated with good quality copper ore, to the amount of 8 tons per fathom; we calculate to have some 9 ft. further to drive to reach the north wall. The 70, east of said shaft, is without change since last reported. The lode in the winze going down below the 70 east is worth 6 tons of ore per fathom. The lode in the stope in bottom of the 70, east of winze, is worth 10 tons of ore per fathom. There is no change in the appearance of the lode where we are cross-cutting the 70 west. To-day we have our monthly settings, particulars of which we will forward early in the coming week.

GOGINAN.—April 6: In the 110, east of winze, below the 100, the lode is 4 ft. wide, producing good saving work. In the stope over this level, east of winze, the lode is worth 15 cwt. of lead ore per fathom. We have not yet intersected the south part of the lode in the 100, but hope to do so in the course of a few days. The lode in the four stopes over the 100 continue to yield about 16 cwt. of lead ore per fm. In the stope over the drift the lode is 5 ft. wide, and worth 11 cwt. of ore per fathom. In the 60, going east, on the north lode, there is no change of importance, the lode producing occasionally good stones of ore. The tribute pitches in the old part of the mine will yield on an average 10 cwt. of lead ore per fathom. All surface work is going on regularly.

GREAT LAXEY.—R. Rowe, April 3: The water is now forked out of the 210 fm. level, and the end resumed to drive north on the lode. In the 200 end we have reached the same level as lately encountered in the 190 fm. level north, and before cutting through it have put the men to prove the full width of the lode on the south side of the slide, and find it about 3 ft. wide, worth 60s. per fathom. The 180 continues to be driven on a part of the lode worth about 80s. per fathom. The sump sinking below the 165, and which we are urging on as fast as possible, in order to open up new ground and communicate with the 180, is down 5½ fms., but the lode in the bottom is not now so rich in lead, more blende having come in; the sump at present is worth about 60s. per fathom. The stopes in the roof of the 165 have changed in a similar way, being very rich in blende, but not so good for lead as formerly. The 165 end continues to open out good lead ground, worth 80s. per fathom; and the 145, driving north, appears at last to be overtaking this productive ground, the end now being worth from 40s. to 50s. per fathom. In the south ground I am unable to report any particular alteration. The 200 end continues poor, and the stopes in the roof of the 165 are yielding about 6 tons of copper ore per fathom. The 60, driving south, is in a lode 3 ft. wide, producing a little copper, but not sufficient to value; we have one stope in the sole of this level, north of the slide, worth 100s. per fathom for lead and blende.—Dumbell's: The shaftmen having sunk for and cut out the lode in the 140, are now ready to resume sinking. The lode in the 140 end is large: size not at present known, but the part we are earing is worth 60s. per fathom. The 125 end is not so good as last reported, now worth 80s. per fathom; but in taking down the side of the level, we have found from the end, we have a lode worth 150s. per fathom. In the 110 the new north sump, just started to sink, is in a lode worth 80s. per fathom; we expect a further improvement here as we sink. In the 60, driving north of Dumbell's, the lode, I am glad to say, has again opened out and improved, now worth 60s. per fathom; and the sump sinking below this level, south of the shaft, is worth 80s. per fathom. In the 50 north we are now commencing a new sump at the end of the ore ground so far discovered in this level, and have a lode to start with worth 60s. per fathom. At Glatton, there is no change or new feature to notice in any of the drivings since our two last reports.

GREAT NORTH LAXEY.—R. Rowe, April 6: The lode in the 110 end north is what is termed here a "nip," but to-day we tapped a fresh feed of water, which

to the undeniably low stocks of tin now in the market, the equally incontrovertible fact, that with a stationary or diminished production of that metal its uses have been considerably multiplied, and the consumption in the manufac-

East Grenville, 1 to 6, declined to 5½, and leave off 5½ to 6; the 55 is worth 2 tons of ore per fathom; the pitch in back, 30, per fm.; the 45, east of rise, 2½ tons per fathom. Wheal Grenvilles have advanced to 56s., 58s.; no change in the mine. Don Pedro North del Rey, 4½ to 4½. East Caradons declined to 6½, 7½. East Lovell, 9 to 14½; Frank Mills, 3½ to 3½; Frontino and Bolivia, 19s. to 20s.; Great Laxey, 19 to 20; Great North Laxey, 20s. to 25s.; Great Retallack, 2½ to 2½; Great Wheal Vor, 17 to 18. Providence Mines, 40 to 42; at the meeting the profit on the quarter was 1695£. 15s. 6d., and the dividend 12. 10s. per share. The report shows the mine to be looking well, particularly in the Carbona, where No. 6 is worth 100£ per fm., and the stopes over it 60£ per fathom. Herodsfoot, 44 to 46; Marke Valley, 8½ to 9; Mineral Bottom, 3½ to 3½; North Crofty, 20s. to 22s. 6d.; North Roskear, 8 to 10; North Treakerby, 18s. to 20s.; Prince of Wales, 23s. to 25s. New Lovell, 2½ to 2½; at the meeting the accounts showed a balance in favour of the company of 194£. 17s. 10d., a result on the face of it very disappointing to those who had been led to expect a considerable profit; but on looking into the accounts it seems to us that three months' costs have been charged against about two and a-half months' returns, the last month's sale of tin, owing to new surface works, having been the produce of a fortnight only. The report shows several important points in the mine, and for the future good profits ought to be made. Redmoor, 3s. to 5s.; Rosewall Hill and Ransom United, 27s. 6d. to 32s. 6d.; South Condurow, 29s. to 31s.; South Grenville, 4s. to 6s.; South Herodsfoot, 20s. to 22s. 6d.; Stray Park, 7 to 8; Tincroft, 19 to 20; West Basset, 1½ to 2½; East Caradon, 5 to 5½; West Chiverton, 51 to 52; West Drake Walls, 5s. to 7s.; West Great Work, 3½ to 4; West Prince of Wales, 2s. 6d. to 5s. South Carn Brea, 5s. to 10s.; the engine went to work on Friday

last, and the mine is expected to be in fork in about five weeks. As soon as the water is out returning tin will be commenced, and at the present price immediate profits are expected. West Seton, 200 to 210; Wheel Buller, 17½ to 20; Wheel Chiverton, 3½ to 3¾; Wheel Crebor, 10s. to 12s. Wheel Kitty (St. Agnes), 5½ to 6; the tutwork operations on the aggregate are valued at 64½ per fathom. At the Copper Hill meeting, held on the 31st ult., the accounts showed a loss on six months' working of 3597. 16s. 8d., and a balance against adventurers of 7497. 14s. 5d. A call of 10s. per share was made. The report shows one or two important points to come off. At Gawton United the lode cut in the 82 cross-cut will produce 10 tons of copper ore per fathom. The lode in the winze sinking below the 70 will turn out 8 to 10 tons per fathom. Penhalls sold for the month 17 tons of tin, for 12467., giving a profit of 4007.

North Treskerby, 18s. to 20s.; at the meeting, held on Tuesday, the accounts showed a loss on two months' working of 517. 9s., and a balance of 827. 6s. 1d. against the mine. The report states that in consequence of an accident to the angle-bob on Feb. 10 the tin sales credited in the present accounts would have been 100% more, and the copper sale to be credited next account is 300% less than it would otherwise have been. It is hoped, however, the deficiency will be made up. Wheel Mary Ann, 16½ to 17½. Bwlch Consols, 2½ to 3; we understand the mine is now making 200% per month profit, and in June or July a dividend, probably of 2s. 6d. per share, will be declared. Wheel Seton, 70 to 75; Wheel Uny, 3½ to 4. Great North Downs balance at the meeting was 14517. 9s. 11d., and a satisfactory report.

The Market for Mine Shares on the Stock Exchange during the week has been far from active, in general sympathy with other markets. The exception to the dullness has been an active demand for Great Vor shares, which have fluctuated between 17 and 19; and Brazilian descriptions have been fairly maintained. Van shares have also been largely bought for investment, at 25 to 26, and the extraordinary richness of the discoveries made bid fair to absorb attention for many years to come. The ore already laid open ensures a continuance of steady profits for many years, the lode in the shaft and in the cross-cut, 15 fms. below the bottom level, being very rich. East Caradon shares have fallen to 7½; Great Laxey shares are 19½ to 19¾; West Chiverton, 51 to 52; East Lovells are firm, at 9 to 9½, and New Lovells have risen to 2½ to 2¾. Chiverton are 3½ to 3¾; Mineral Bottom, 3½ to 3¾; Prince of Wales, 22s. to 24s.; Vor shares, 17 to 17½. Del Rey shares have declined to 17, 17½; Don Pedro shares are steady, at 3½ to 3¾ prem., ex div.; Rossa Grande, 7-16 to 9-16 prem.; Taquaril enquired for, at 3s. 6d., 4s. 6d. prem.; Sao Vicente, 1-16 to 3-16 prem.; Chontales are less firm, at 1-16 to 1-16 per share; Port Phillip, 9-16 to 11-16; Frontino and Bolivia, Gold, buyers ½ to 1, on the improved prospects of the company; Yudanamatana, 1½ to 1½; General Brazilian shares are fairly maintained, at 4s. 6d. to 5s. 6d. prem. Glan Alun, 14s. to 15s.; the new machinery is now working, and lead raising and profits may be confidently looked for at an early date.

IRISH MINE SHARE MARKET.—The tendency of the Stock Exchange market was chiefly directed to investments in Government securities, nevertheless mining shares were not neglected. The demand for Mining Company of Ireland shares does not disclose any very settled confidence on the part of the public in the ultimate result of the Chancery proceedings for the recovery of the valuable Berehaven Copper Mines, for the price has been declining for some days past. However, holders are not anxious to press for sales at present quotations, which may be taken at 107. 17s. 6d. to 111. per share (7½ paid), and, therefore, business has been restricted to very few transactions. Wicklow Copper shares, on the other hand, have increased in public favour since the issue of the directors' report, preparatory to the meeting of shareholders, to be held this day. The report congratulates the shareholders on the improved prospects of the sulphur trade, and recommends a dividend of 5s. per share, or at the rate of 20 per cent. per annum, amounting to 42507., and leaving 2907. 7s. 5d. to be carried to reserve fund. The demand for these shares (27. 10s. paid) considerably exceeds the supply, and the price is firm at 12½. Connore shares have been weaker of late, sales having been made at 3s. 6d., or 6d. per share under previous quotations. Killaloe Slate Quarry shares are on sale at 17s. 3d., ex div.; and General Mining Company for Ireland shares have further receded to 10s. each.

THE BLUE HILLS TIN MINING COMPANY has been constituted, with 5000 shares, the whole of which have been subscribed for. The grant is from the Duchy of Cornwall for 21 years, at a royalty of 1-24th. The mine is only 60 fathoms deep, and the old workings are now dry to the 40 fm. level. When last worked, in 1800, tin was 35½ per ton, the present quotation is 75½ to 80½. The sett embraces the whole of Wheel Kitty, Penhalls, and Polberrow lodes; each of these mines are making large profits. Great Pink and Blue Hills when last worked gave 150,0007. profit, and the deepest point at which these rich lodes have been seen in the Blue Hills grant is 50 fathoms from surface. The company have secured water power, and it is confidently anticipated that large returns of tin will be made in a few months.

THE GREAT ROCK LEAD MINING COMPANY is the title of an undertaking formed for the purpose of extending the development of the Clegir Mawr Mine, which is situated upon the same range of mountains as the Van, and a few miles distant from the Llanganau, which is said to have yielded enormous profits to the Powis family. There is a uniformity of testimony among the various practical authorities who have inspected the property that it possesses the elements of a highly productive mine, the lodes varying in value from 15 cwt. to 2 tons of lead per fathom. The directors are gentlemen of local position and influence. The company is to be divided into 3000 shares of 47. each. The prospectus will appear in next week's Mining Journal.

THE ALMADA SILVER MINING COMPANY have allotted their shares, and Mr. F. W. Breach proceeds to the mines this day to take possession on behalf of the company. The accounts from the mines to Feb. 15 are quite satisfactory. Good results are anticipated as soon as the work has been systematically commenced.

THE NEW ZEALAND QUARTZ CRUSHING AND GOLD MINING COMPANY, with a capital of 50,0007., divided into 25,000 shares of 27. each, has been formed for the purpose of carrying on mining operations in the recently-discovered gold fields of New Zealand. The first object in view, however, is to supply the working miner with the appliances necessary to make his labours remunerative, and upon the authority of the manager, who has had a lengthened practical experience in the Australian gold fields, mining proper is not the most profitable operation in a newly-populated gold field; and for these reasons—the difficulty of immediately finding and securing a really rich quartz claim, the expense attending mining operations unless the vein is of the richest character, and that unless a really rich claim is possessed, the machinery employed to crush and amalgamate for others will give far greater profit, at a tithe of the expense, and avoiding all risk. Miners willingly offer to share with those who are provided with reduction machinery. It is also intended to crush at the rate ruling at the mines. It appears that there are at present something like 1500 claims now in actual work, while less than 50 are provided with machinery, in which cases, being chiefly occupied by the owners, it is not available to the mass of working miners; hence, this company propose to send out steam-engines, with the necessary crushing and amalgamating apparatus, under the superintendence of an experienced manager and a small staff of thoroughly qualified assistants. The manager has agreed to undertake the practical control of the affairs of the company for not less than three years, and to make his remuneration entirely dependent on the success of the company, by accepting for his services during that period, and for paying all his own expenses while residing in the colony, 2500 fully paid-up shares instead of money, and after 25 per cent. dividend has been paid all surplus profits beyond such amount to be divided as follows:—90 per cent., or 9-10ths, to be paid to the shareholders, and 10 per cent., or 1-10th, to the manager; 1000 of the said shares to be held in trust by the directors, and in the event of the manager's death during the three years to be cancelled for the benefit of the company, but in the meantime he to be allowed the dividends thereon. It is proposed to issue, in the first instance, one-half of the shares, by which a capital of 25,0007. will be subscribed; and it is estimated that by the judicious expenditure

of 20,0007. a weekly profit of 7387. can be realised, or 38,3767. per annum. But by taking even one-half of this amount, it would give the shareholders 76 per cent. per annum. An engineer of superior attainments in the erection and management of works for quartz crushing and gold refining has been provisionally engaged; he has had 17 years experience in this peculiar branch, and possesses the highest testimonials of character and ability from the eminent firm of Messrs. John Taylor and Sons.

At Redruth Ticketing, on Thursday, 1384 tons of ore were sold realising 51207. 10s. 6d. The particulars of the sale were:—Average standard, 1087. 18s.; average produce, 5½; average price per ton, 37. 14s.; quantity of fine copper, 81 tons 19 cwt. The following are the particulars of the sales during the past month:—

Date.	Tons.	Standard.	Produce.	Per ton.	Per unit.	Ore copper.
March 11.	607	1014	140	7½	£4 13 0	12s. 9½d. £23 13 0
18	3994	110	20	6½	3 19 0	13 0 65 0 0
25	1911	98	60	8½	5 7 0	13 0 65 0 0
April 1	2083	106	10	8½	3 19 0	12 6 62 11 0
8	1384	108	180	8½	3 14 0	12 6 62 9 6

Compared with last week's sale, the advance has been in the standard 17s., and in the price per ton of ore about 1s. Compared with the corresponding sale of last month, the advance has been in the standard 27. 10s., and in the price per ton of ore about 3s.

The Standards of Tin Ores and Prices of Metal were advanced on Monday, and are now as follows:—Ores: Common, 120s.; superior common, 121s.; fine, 122s.; superior fine, 124s.—Metal: Common, 133s.; refined, 139s.

At the Cwm Erfin Mining Company meeting, on Wednesday, a further dividend of 4337. 10s. (10s. per share) was declared.

At the Foxdale Mines (Isle of Man) quarterly meeting, on April 3, the directors declared a dividend of 14007. (10s. per share).

At the North Treskerby Mine meeting, on Tuesday, the accounts showed a loss on the two months' working of 517. 9s., and a debit balance of 827. 6s. 1d. The last sale of copper ore, for the credit of the next account, is 5447. 16s. 6d. The report of the agents stated that, looking at the general prospects of the mine, which are good, they are induced to believe that they will go on to pay cost, as well as open up a profitable mine.

At the Bronyddau Mining Company meeting, to be held on Monday, the quarter's accounts will show—Sales of ore, 1607. 16s. 11d.; three months' cost, 3847. 14s. 11d.; profit on the quarter, 6667. 2s.; which, added to 7387. 8s. 2d. the undivided balance of last quarter, leaves an available credit balance of 14597. 10s. 3d. The mine is reported to be richer than ever at its deepest point.

At the Snaefell Mining Company meeting, to be held on Thursday, the accounts to be submitted show that the receipts from Aug. 8 to Feb. 15 amount to 19567. 3s. 7d., and the expenditure to 1827. 11s. 3d. The assets over liabilities, including 15367. 10s. due on the third and fourth call, amount to 16707. 2s. 4d. The directors think it advisable to state that the assets above-mentioned are exclusive of calls payable on 1671 shares, taken up under the second allotment, and to the produce to be derived from the balance of shares now being disposed of in the market.

At the Governor and Company of Copper Miners in England annual court, on Wednesday (Mr. Lewis Harroll Haslewood in the chair), the accounts showed a loss of 21467. upon the year's operations, and a debit balance of 23737. The report was adopted unanimously, and a committee was appointed to consult with the Court of Assistants as to the position and prospects of the company. Details in another column.

The Committee of the Stock Exchange have ordered the shares of the Port Phillip and Colonial Gold Mining Company (Limited) to be quoted in the Official List as 27. shares, with 1½ paid, in accordance with the order of the Court of Chancery, registered on the 6th inst.

The Braganza Gold Mining Company's shares are at ¼ to ½ prem. The Ironmasters' Company's shares are quoted at 15½ to 16½.

TO COAL AND IRON MASTERS, &c.

A GENTLEMAN, experienced in MANAGEMENT, desires an APPOINTMENT as CONFIDENTIAL GENERAL MANAGER of an extensive COLLIERY, IRON WORKS, MINES, &c., or the development of fresh ground, where high-class certified antecedents of integrity, practical business ability and energy, &c., would be appreciatively remunerated. Could take a pecuniary interest, if desired. Address, "Fides," care of Mr. A. Day, Bookseller, 52, New-street, Birmingham.

TO CAPITALISTS, COMPANIES, ETC.

A MINING ENGINEER, of LARGE EXPERIENCE, both in the COLLIERIES and MINE WORKS of SOUTH WALES, and in IRON MINES ABROAD, and now residing and holding an important mineral agency in Wales, has a part of his time unoccupied, and is OPEN to MAKE ARRANGEMENTS with any GENTLEMAN or COMPANY who may wish to employ him in the INSPECTION or SUPERINTENDENCE of MINING WORKS or PROPERTIES.

He is thoroughly acquainted with sound practical COAL and IRON MINING, and their correlative branches, and can produce the highest references as to respectability and competency. Reports, surveys, and valuations made, and railways, inclines, &c., planned and superintended. Address—"Alpha," P. T. Pontypridd, Glamorganshire.

AN EXPERIENCED ASSAYER is desirous of OBTAINING a SITUATION, either at home or abroad. First-class references given. Address, "Aurum," Post Office, Landore, near Swansea, Wales.

MINING IN SWEDEN.

AN ENGLISH MINING ENGINEER, acquainted with the Swedish language, mining laws, and customs of workpeople, &c., of the country, and now engaged in directing mining works in Sweden, OFFERS his SERVICES to INSPECT and REPORT on MINES for intending speculators, or, if required, to DIRECT the TRIAL or PERMANENT WORKINGS. Address, "Sweden," Mining Journal Office, 26, Fleet-street, London, E.C.

WANTED, a SITUATION, by a good practical ASSAYER and ANALYST, or to MANAGE COPPER SMELTING or other works, or to BUY ORES at home or abroad. Good references given, and good salary required. Address, F. J. MERRY, 4, Elliott-street, Swansea.

TO SLATE QUARRY WORKERS AND PROPRIETORS.

WANTED, a PARTNER, with £500, in an excellent SLATE QUARRY in SOUTH DEVON. The quarry is now in full working order, with PLANT, &c.; or the proprietor is prepared to TREAT for the SALE of the QUARRY.

For a view, and further particulars, apply to Mr. OLDFIELD, King's Arms Inn, Street, near Dartmouth; to Mr. T. L. OLDFIELD, Land Surveyor, Bridgetown, Totnes; or to Mr. SMITH, Solicitor, Dartmouth.—March, 1869.

WANTED, a 70-inch cylinder PUMPING ENGINE, with TWO BOILERS, of 10 tons each. State maker's name, and full particulars, with lowest price for cash. Address—Mr. JAMES HICKEY, 22, Austinfriars, London.

LEAD MINES AS AN INVESTMENT.

MR. J. H. MURCHISON will shortly publish a PAMPHLET on the "LEAD MINES OF CARDIGANSHIRE AND MONTGOMERYSHIRE,"—districts comprising VAN, DYLIFFE, LISBURNE, EAST DARREN, SOUTH DARREN, and other important Mines. Price 6d. In the meantime, orders for early copies may be sent to Mr. MURCHISON, at his office, 8, Austinfriars, London; and information will also be given relative to Mines in the above districts to anyone wishing and applying for the same.

MR. EDWARD BREWIS, STOCK AND SHAREDEALER, No. 84, OLD BROAD STREET, LONDON, E.C., has BUSINESS, for cash or account, in all the various gold and silver, copper and lead, and especially tin shares, at advantageous prices. Investors who are in unmarketable stock may find purchasers. Money advanced on good shares. Bankers: The Alliance Bank, London, E.C.

WALTER TREGILLAS, 122, BISHOPSGATE STREET, WITHIN, LONDON, E.C., DEALS in all STOCKS AND SHARES, either for cash or for the fortnightly settlement. SPECIAL BUSINESS in the following gold mines:—Don Pedro, Rossa Grande, General Brazilian, Taquaril, Ding Dong, Anglo-Brazilian.

BUYER of 10 Ding Dong shares. Bankers: The Alliance Bank.

MR. H. WADDINGTON, SHAREDEALER, 43, THREADNEEDLE STREET, LONDON.

WEST BASSET.—For reliable information as to future prospects, &c., apply as above. WHEAL AGAR.—For a genuine speculation, with analogies for the most promisingly productive, there is not, or ever was, an adventure in the West of England—one of superior chances, or greater probabilities of success. Apply to H. W. for further information.

MR. J. N. MAUGHAN, STOCK AND SHAREBROKER (Member of the Stock Exchange), No. 2, COLLINGWOOD STREET, NEWCASTLE-ON-TYNE, Bankers: Messrs. Lambton and Co.

MR. J. S. MERRY, ASSAYER AND ANALYTICAL CHEMIST, SWANSEA.

ASSAYS AND ANALYSIS.—MR. JOSEPH GREEN, for the past eighteen years professional Assayer to the Chester Goldsmiths' Company, UNDERTAKES THE ASSAYING AND ANALYSIS OF EVERY DESCRIPTION OF MINERAL. ASSAY OFFICE, CHESTER.

Spanish Consulate General.

LEASE, for FORTY YEARS, of the MINES of LINARES.

NOTICE IS HEREBY GIVEN, that TENDERS for the above will be RECEIVED at the office of the Direccion General de Propiedades de Estado, Madrid, up to the 31st May next. The conditions may be inspected at the Consulate General, No. 155, Fenchurch-street, E.C. The Consul-General for Spain, U. MONTEJO.

In the Matter of the Companies Act, 1867,

AND IN THE MATTER OF

THE PORT PHILLIP AND COLONIAL GOLD MINING COMPANY (LIMITED).

NOTICE IS HEREBY GIVEN that the REGISTRAR OF JOINT-STOCK COMPANIES did, on the 5th day of April instant, duly register the Order of the High Court of Chancery, made in these matters on the 12th day of March last, by His Honour the Vice-Chancellor, Sir John Stuart, confirming the REDUCTION of the CAPITAL of the ABOVE-MENTIONED COMPANY, and also the minute approved by the said Court, showing, with respect to the capital of the company as altered by the said order, the amount of such capital, the number of shares into which it is to be divided, and the amount of each share. And the said Registrar did, on the 5th day of April instant, certify under his hand the registration of the said order and minute, pursuant to the statute, and which said certificate is in the words and figures following: that is to say—

CERTIFICATE OF REGISTRATION OF ORDER OF COURT AND MINUTE ON REDUCTION OF CAPITAL.

The Port Phillip and Colonial Gold Mining Company (Limited and Reduced) having, by special resolution, reduced its capital, as confirmed by an order of the High Court of Chancery, bearing date the 12th day of March, 1869, I hereby certify the registration of the said order and of a minute showing that the capital of the company is now £200,000, divided into 100,000 shares of £2 each.

Given under my hand at London, this 5th day of April, 1869.

Companies Act, 1867, s. 15. (Signed) R. C. CURZON,

Registrar of Joint-Stock Companies, YOUNG, MAPLES, TEESDALE, AND NELSON, 6, Frederick's-place, Old Jewry, in the City of London, Solicitors to the above-mentioned Company.

Dated this 9th day of April, 1869.

In the Matter of the Companies Acts, 1862 and 1867,

AND OF

THE GREAT NORTHERN COPPER MINING COMPANY OF SOUTH AUSTRALIA (LIMITED).

THE CREDITORS of the ABOVE-NAMED COMPANY resident in Europe are REQUIRED, on or before the 20th day of May, 1869, and the CREDITORS of the ABOVE-NAMED COMPANY resident elsewhere out of Europe are REQUIRED, on or before the 20th day of October, 1869, to SEND IN THEIR NAMES AND ADDRESSES, and the PARTICULARS OF THEIR DEBTS OR CLAIMS, and the names and addresses of their solicitors (if any) to James Lowell Price, of No. 13, Gresham-street, in the City of London, the official liquidator of the said company, and, if so required by notice in writing from the said official liquidator, or by their solicitors to COME IN AND PROVE THEIR SAID DEBTS OR CLAIMS at the Chambers of the Master of the Rolls, situate in the Rolls-yard, Chancery-lane, in the county of Middlesex, at such time as shall be specified in such notice, or in default thereof they will be EXCLUDED FROM THE BENEFIT OF ANY DISTRIBUTION made before such debts are proved. Monday, the 1st day of November, 1869, at Two o'clock in the afternoon, at the said chambers, is appointed for hearing and adjudicating upon the debts and claims.

JOHN WM. HAWKINS, Chief Clerk.

VALLANCE AND VALLANCE, 20, Essex-street, Strand (Solicitors for the Official Liquidator).

Dated this 8th day of April, 1869.

DON PEDRO NORTH DEL REY GOLD MINING COMPANY (LIMITED).—Notice is hereby given, that an EXTRAORDINARY GENERAL MEETING of the company will be HELD at the London Tavern, Bishopsgate-street, on THURSDAY, the 15th day of April inst., at Two o'clock precisely, for the purpose of confirming a resolution passed at the Extraordinary General Meeting held on the 18th of March, 1869, for adding a new article to the Company's Articles of Association, authorising the directors to appoint a managing director of the company. By order of the Board, JOHN E. DAWSON, Secretary.

LEAD ORES.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
April 2—	Minera	110	£12 14 6	Walker, Parker, & Co.
—	ditto	109	12 14 6	ditto
—	ditto	54	12 17 6	A. Eytton.
—	ditto	100	12 14 6	Walker, Parker, & Co.
—	ditto	75	12 14 6	ditto
—	ditto	52	12 16 6	ditto
—	Macs-y-Safn	40	12 12 6	Delafield Lead Co.
—	ditto	30	12 12 6	P. Glover.
—	ditto	20	12 13 6	A. Eytton.
—	ditto	20	12 13 6	Delafield Lead Co.
7—	Wheal Trelawny	77	23 10 6	Sims, Williams, & Co.
8—	Talarogoch	44½	13 11 6	Walker, Parker, & Co.
—	ditto	109	14 3 6	ditto
8—	Van	100	13 13 6	ditto
—	ditto	50	13 13 6	ditto
—	Holywell Level	72	12 8 6	A. Eytton.
—	Bryn Gwlog	25	13 1 6	Walker, Parker, & Co.
—	Trelogan	20	13 5 0	A. Eytton.
—	Deep Level	25	13 1 0	Walker, Parker, & Co.
—	New Westminster	10	11 18 6	ditto
—	Wagstaff	13½	10 16 6	ditto
—	Sir Edward	10	13 12 6	ditto
—	ditto	2	11 10 0	A. Eytton.
—	Pennant	5	12 3 6	Walker, Parker, & Co.
—	Speedwell (South)	11	11 13 6	ditto

BLLENDE.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
April 2—	Minera	100	£ 4 18 0	Dilwyn and Co.
— ditto		36	4 18 0	ditto
— ditto		67	4 0 6	ditto
— ditto		50	3 8 0	ditto
— ditto		37	3 16 0	ditto
7—	Trelogan	130	3 10 6	Bagillt Smelting Co.

BLACK TIN.

Date.	Mines.	Ts.	c.	q.	lbs.	Price p. ton.	Amount.	Purchasers.
April 1—Prosper United.	13	13	3	17	..	£	.. £293 4	0—Michell.
—Wheal Uny	6	12	3	4	..	74 12 6	.. 495 9	1—Redruth Co.
2—Tresavean and Tretharrup..	25	5	1	0	..	—	.. 61 0	0— —

COPPER ORES.

Sampled March 24, and sold at Tab's Hotel, Redruth, April 8.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
Crenver & Abraham	90	£2 13 6	Par Consols	50	£4 3 6
ditto	65	2 8 6	Prosper United	81	2 5 0
ditto	65	2 2 6	ditto	30	4 3 0
ditto	55	2 9 6	ditto	24	6 0 6
ditto	54	3 1 0	North Downs	48	7 0 6
ditto	53	3 1 0	ditto	45	5 10 6
Carn Brea	63	4 6 6	ditto	35	5 7 0
ditto	54	6 1 0	East Carn Brea	49	4 11 0
ditto	52	8 9 6	ditto	20	4 1 0
ditto	61	4 14 6	ditto	21	1 4 0
ditto	49	4 8 6	ditto	20	3 13 6
ditto	26	2 16 6	Wh. Emily Henrietta	35	8 1 0
ditto	17	1 1 6	ditto	32	4 6 0
Par Consols	75	4 2 0	ditto	28	1 19 6
ditto	70	1 3 0	Great South Toigous	20	3 10 6

TOTAL PRODUCE.

Crenver & Abraham	380	£293 2 0	North Downs	128	£773 1 6
Carn Brea	312	1239 8 0	East Carn Brea	115	422 18 0
Par Consols	195	596 15 0	Emily Henrietta	93	458 11 0
Prosper United	141	476 5 0	Great So. Toigous	20	70 10 0

Average standard..... £108 18 0 | Average produce..... 8½
Average price per ton..... £5 14 0
Quantity of ore..... 1384 tons | Quantity of fine copper..... 81 tons 19 cwt.
Amount of money..... £ 5120 10 6
LAST SALE.—Average standard..... £106 1 0—Average produce..... 6½
Standard of corresponding sale last month, £101 14 0—Produce, 7¼.

COMPANIES BY WHOM THE ORES WERE PURCHASED.

Names.	Tons.	Amount.
Vivian and Sons	155	£ 330 18 9
Freeman and Co.	70½	322 18 6
Grenfell and Sons	317	1559 16 0
Sims, Williams, and Co.	142½	637 1 0
Williams, Foster, & Co.	214½	826 18 6
Mason and Eikington	217½	519 11 0
Bankart and Sons	58	911 1 0
Copper Miners' Company	133	411 18 9
Sweetland, Tuttle, and Co.	76	270 7 0
Total	1284	£5120 10 6

NO SALE on Thursday next, April 15.
Copper ores for sale at the Royal Hotel, Truro, on Thursday week—Mines and parcels.—Devon Great Consols 1415—Marke Valley 488—East Caradon 194—Okef 180—Gawton Copper Mine 125—Gonnamore 119—Kelly Bray 100—Prince of Wales 100—Hingston Down 83—Bedford Copper 9.—Total, 2925 tons.

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Notices to Correspondents.

* Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be filed on receipt: it then forms an accumulating useful work of reference.

MINING IN IRELAND.—Why are not the officials connected with the various companies formed in Ireland for working mineral properties more communicative? Enquire wherever you may, in Dublin or London, the reply, when seeking information, is invariably the same—We do not know, but will endeavour to learn. I am induced to write you now, from having been urged to embark in Wicklow Copper Mines shares, as a safe and profitable investment, and being unable to learn any particulars as to the position and prospects of the undertaking. On referring to the Journal, I learn that 5s. per share dividend was declared at the last meeting: now this, at the present price of the shares, would not yield 4 per cent. I should feel obliged if someone would communicate, for the benefit of your readers generally, the necessary information to form an opinion as to the desirability of investing in Irish mine companies.—W. C.

A "Constant Reader" will feel much obliged to any of your correspondents who can furnish him with a detailed list of the shareholders in the Cape Copper Mines, Moonta, and Wallaroo Mines—Address, "X. Y. Z., Mining Journal Office, 26, Fleet-street, London.

THE MINING JOURNAL, Railway and Commercial Gazette.

LONDON, APRIL 10, 1869.

DRAINAGE AND PUMPING.

In another column note is made of a colliery inundation in Nottinghamshire. Taking place, as that accident does, so soon after the one which has thrilled the whole nation, and excited the deepest interest, attention is reasonably aroused with peculiar emphasis to the source of impediment to safe and profitable mining which inflowing water presents. It is a reflection that promptly occurs to the mind that, even as in a time of rapid meteorological changes the ventilation of a pit should be watched with increased vigilance, so when there has been a profuse rain fall should the breaking in by water be apprehended wherever collieries are surrounded by old workings. That the accidents at Brierley Hill and Skegby have both resulted from the more than customary pressure upon the barriers which the old pockets in which the water has accumulated ordinarily presents, there can be no reasonable doubt. Such a pressure has been made overpowering by the recent very copious rains. Every mines manager knew all this before, but he is now reminded of it with painful foreboding; and his regret will be the greater if, by-and-by, that happens which these occurrences ought to have gone far to prevent. To everyone having the oversight of mines surrounded by traces of the old men we would, therefore, say: Give attention to this subject with promptitude, and in deeper characters tabulate your memory with "heavy rainfall, weakened water barriers."

The Brierley Hill accident proves that it does not always follow that the putting up of the strongest possible dam will secure an immunity from flooding, even where it is known that water exists on the other side; but the facts in connection with that accident prove that one may be put up sufficiently repellant to keep back almost any accumulation in the ordinary channel. And they further demonstrate that untold benefits sometimes accrue from an abundance of pumping-power. If it be responded that every colliery proprietor cannot spend 25,000*l.* in draining a property, we reply that coal mines may be freed of water at a much less cost than in many instances has now to be borne. This is tolerably conclusive from the information upon the pumping question which appeared in the Journal a fortnight ago.

Increased economy may be brought about alike by the adoption of better pumping apparatus than is now in some cases used, and by frank and judicious co-operation and combination amongst neighbouring proprietors. Upon the first point we have a hint no less powerful than the fact that two years and a-half only have elapsed since Mr. WASHINGTON SMYTH placed it upon record that he had watched a large pumping-engine in the North, which raised water 105 fathoms deep in 12 in. lifts at 7½ strokes per minute, with a consumption of 20 to 25 tons of slack per day, whilst a similar amount of work is done by an average Cornish engine with from two to two and one-third tons. The coal in the first-named instance was inferior, but the result, Mr. SMYTH says, shows that there are engines in the country consuming upwards of ten times the quantity of coal needed for the work accomplished. In some quarters BULL'S engines were a few years ago in favour. BULL'S principle was that of omitting the heavy beam or "bob," and placing the cylinder over the shaft, connecting the piston-rod worked through the bottom directly with the main rod of the pumps; but the value of these engines, as compared with certain others, is doubtful. More recently the modification of inverting the cylinder and placing the beam below it has got into fashion at other collieries, notwithstanding the fact that in Cornwall it has been condemned after long experience.

Cornwall has all along taken the lead in investigations relating to the draining of mines. There, in the deep mines, the buckets of the pumps were substituted by a forcing arrangement in all but the bottom lift. This Captain LEAN accomplished with the plunger-pole or ram, working through a stuffing-box into a plunger-case of bored cast-iron, and forcing at every down stroke the water upwards through an upper clack, and the clear column of pipes above it. The arrangement in Cornwall, Mr. SMYTH has himself shown, is universally the same. From the end of the main beam, projecting over the engine-shaft, a single rod passes all the way down to the bottom, or bucket-lift. Employed in its maximum strength at the surface, where it has the full weight to sustain, it is then tapered or diminished downward, according to the diminution of the strain by which it is affected,

Thus, in a deep mine, a main-rod of 290 fathoms long is made, for the first 120 fathoms of two 12-in. square Riga balk, and afterwards one of 15-in. balk, decreasing to 14 in. and 12 in. At the requisite intervals the plunger-poles are attached to it by sets-off, bound to it by strong staples of iron. The several lengths of rod, generally from 40 to 70 feet in length, are connected by the aid of strapping-plates of hammered iron, from 9 to 12 feet long, on opposite sides of the rod, bolted through it with screw-bolts. At moderate distances apart stays are placed across the shaft, which guide the motion of the rod, and iron rollers are added, where it deviates from the perpendicular. At intervals, too, very strong beams are placed in the shaft as catches to prevent the fall of the rods downwards, as well as indoor catches, to prevent damage to the engine in case of the rod breaking at a shallow point, and thus being suddenly relieved of its great weight. In this manner (Mr. SMYTH continues) the gigantic pumps employed in some of the mines are worked with such perfect ease and smoothness of action that you may stand near them in the shaft, and not be aware, except by seeing, that they are in motion. The necessity for economy, and the competition between the engineers in Cornwall, have brought the pitwork to a higher degree of perfection than is to be seen elsewhere. When tested by the work done for a given sum of money, it contrasts remarkably with the rattle and concussion, the heavy cross-heads, and the greater complication of rods that are often noticeable in other mining regions, even though the excellent invention of the plunger may have been adopted. As in the pumps, so also in the engines for working them, Cornishmen have taken the lead. So soon as the expiring of WATT'S patent gave them the opportunity, they organised a system by which the engines, with their conditions of work, and the duty accomplished, became reported at monthly intervals. From an average duty of 17,000,000, performed in WATT'S time (say 1811), an advance was made to the astonishing maximum of 125,000,000. This grand result was reported after a careful investigation, by a committee of mine agents, of AUSTEN'S engine of 80 in. diameter, erected by Mr. W. WEST, at Fowey Consols Mines. With coal at even 15s. a ton, the fuel-cost at this engine was ½*d.*, to raise 2½ tons of water 100 fathoms. When this was being done, the combustion was so complete that scarcely any trace of smoke was observable from the stacks in Cornwall. Scarcely as much can be said now. Mr. SMYTH hints that the cause may be found as much in a false economy, which slackens the supervision of reporting the engines, as from the inferior coal.

As to the saving to result from combined action in pumping operations, Mr. WALLER, in his "desire to assist in the economical draining" of the Northumberland and Durham district, has demonstrated that the larger the amount of duty performed, the less cost there is in doing that duty, "which (he says) clearly shows that associations formed for draining large districts should, on this account alone, be able to work more economically than the smaller efforts of each colliery proprietor."

COLLIERY INUNDATION IN NOTTINGHAMSHIRE.

A painful contrast to the accident at Brierley Hill has, it is feared, happened at Skegby, near Mansfield. Whilst only 1 out of the 13 men was lost at the former place, 4 out of 7, there is only too much reason to conclude, have gone in the latter. In both cases the crews were at work at night, and were then surprised by the bursting in of water from old workings; but whilst at Brierley Hill both the workings in which the two sets of men were engaged were in the crop, at Skegby one of the two in which the men there also were at work are in the dip. EARL DUDLEY'S men were, therefore, out of the way of the water for some time. Messrs. EASTWOOD'S three men, who were in the crop, would have been immured, like LORD DUDLEY'S men, if they had not become aware of the danger as soon as it began to exist. Without being able to alarm their mates, who were in the dip workings, the three made for the shaft, which is in the crop, and leaped into the skip, which when they had been lowered was left swinging there to bring them up again. Even here they experienced—if the accounts to hand are to be relied upon—a narrow escape from drowning. It is asserted that the engine-tender, knowing that they were not to return to bank till the morning, left his engine and went home to bed. If this be so, his return was hardly early enough to save him from incurring the frightful responsibility of having left them to die. Anyhow, by the time they were lifted the water had ascended in the shaft to their chins, even as they stood in the suspended skip. Another account says that the engineman could not be alarmed, because there was no signal from the bottom of the shaft. In that case the Mines' Inspection Act points out who else is responsible. Without deciding whether the law has been infringed in the absence of signaling, or in the absence of the engineman, it is certain, in respect of one or the other, that matters have gone wrong at the pit, independently of any cause to be hereafter assigned for the breaking in of the water, which may be innocent enough. The last-mentioned cause of delay in raising the three men we decline, with our present information, to believe exists at any of the pits of Messrs. EASTWOOD and Co. We can hardly understand that at such a pit one of the leading requirements of the Mines' Inspection Act is disregarded, and that a shaft of 95 yards is without the means of signaling from bottom, especially as it is the practice to send down men to work night shifts. It is possible that even yet the four men may be recovered alive. We trust that they may. The efforts to get at them now being made seem to be all that are possible under the circumstances.

FAST SHOTS.

"A terrible list!" Truly, a terrible list. Thirty-four men killed in the Wigan district from a fast shot is enough to invoke such an expression, even from the Coroner who will have to ascertain why there was such a list, and to whom, unhappily, such calamities are no rarity. The readers of the *Mining Journal* are only too familiar with recent results of shot-firing in the explosive seams of the Arley Mine. The brief account which we printed last week, supplemented by the more complete facts given to-day, will have placed them in possession of the particulars relating to this last disaster of the kind, so far as they can be made known before the inquest has closed. We all know how much more hazardous a blow-out shot is than one which does its work efficiently. That this accident resulted from a fast shot there seems no reason whatever to doubt. On the morning of the explosion Mr. HIGSON, the Government Inspector of Coal Mines, and his son descended the pit, accompanied by Mr. MERCER, one of the proprietors, by Mr. SMETHURST, Mr. SHORTREDE, from local collieries, Mr. CLARK, surveyor to Sir ROBERT GERARD, and others. Mr. HIGSON and his son remained in the mine for three hours and a half, and in the course of that time examined all the workings. They discovered that a blow-out shot had occasioned the disaster. Instead of blowing down the head of coal the powder had blown out the ramming; this would be followed by "a long broad rope of fire," which would then spread with destructive power right and left. This "rope" of flame would be expelled with the force, and with the destructiveness, too, of a pellet from a gun.

The part of the workings in which the accident occurred may be thus described:—The downcast-shaft is 225 yards deep, and reaches the Yard coal, lying 120 yards above the Arley Mine. From the pit, a few yards were driven to the dip in the Yard coal, at which point the sinkers intersected a fault of 120 yards, which threw up the Arley to the level of the Yard coal. They then drove 100 yards down-brow, in the Arley Mine, and met with a number of faults, which necessitated the driving of a tunnel of 100 yards, with a rise of 1 in 6. This is called the Jig-brow Tunnel. At the end of the 100 yard tunnel the Arley Mine is again intersected, and then a working of 300 yards in length is driven down-brow, in a south-easterly direction. At the extreme end of this working the unfortunate victims of the calamity were last working. The seat of the explosion appears to have been at a "place" cut out of the lowest level, and distant about 560 yards from the shaft. There is little or no dip. It is said there is no colliery in the country where the ground is so much broken as this, and where the coal has to be recovered under more trying difficulties. The Arley Mine is well known as "fiery;" and it is believed that on this occasion flame from the shot has fired gas, and the exploding gas would kill the men. The gas has, probably, accumulated in some "place" near the seat of the explosion.

Why there had been this accumulation is a matter to be hereafter

explained. Notwithstanding that it is anomalous for shot firing to take place in a pit where it is necessary to use lamps, still experience has shown that with efficient ventilation coal may be split with powder, skilfully handled, without serious disasters being of a very frequent occurrence. The complaint in relation to some former accidents in the same district, which are still fresh in the memory of the reader, that the shots were not fired by a properly qualified fireman, cannot be raised here. In this case the whole is supposed to have been under the immediate supervision of a careful fireman, and the poor fellow is himself among the killed.

Among the modern remedies which suggest themselves, the use of the electric battery, and the coal to be brought down between "shifts," have been mentioned. A much better device is a coal-splitting machine. The exhibition a short while ago of the productions of the genius in this direction of Mr. BIDDER and Mr. CHUBB led the mining world to conclude that we were much nearer the possession of such an apparatus than now appears likely, judging from the fact that so little has recently been heard of the machines. We have before intimated that if those gentlemen would only distribute a few of them in their present condition amongst our miners it would be quickly shown in what respect they most need improvement. With the required antidote for the terrible evils of shot firing so near at hand as those machines would indicate, it is more than tantalising that perfection seems unnecessarily delayed.

In this, however, we are looking more to the future than to the present. The accident at the unfortunate Highbrooks Colliery last Thursday would not, probably, have happened if the coal had been attempted to be split with a machine and not by powder; but the questions for immediate decision are—Ought it to have happened even with powder; and whether the state of things thereby revealed do not indicate that if there had not been an explosion from a spent shot, such an accident would have been probable from another source of fire? These enquiries will, doubtless, be fully investigated by the Coroner and his jury, assisted by the able Government Inspector of the district. Till they have been so investigated we must do no more than mention them. The Journal will do nothing to embarrass men who are suffering enough from the calamity in its present form. They have our sincerest sympathy. Than ourselves no one will more rejoice if this further catastrophe can be fairly placed upon the catalogue of misadventures inevitable from the mining of such fuel as that most found in the Wigan field.

EXHIBITION OF THE MINING PRODUCTS OF CORNWALL AND DEVONSHIRE.

The British Association's choice of Exeter as the city wherein to hold their meeting in 1869 will be availed of as an opportunity by those connected with the mineral industries of the Western Counties to make the vastness of their resources known. With a view to impart a local character to the meeting, the local executive committee have resolved to hold an exhibition of the mining products, building stones, rocks, and fossils of Devon and Cornwall, in the Albert Memorial Museum during the Association's week. As to the desirability of such an exhibition it is scarcely possible that difference of opinion can exist, and it is, therefore, to be hoped that the various mine agents, captains of mines, quarry and clay works proprietors, and all others interested, will exert themselves to enable the committee to make it at once attractive and representative. Although Devon and Cornwall enjoys a high position for their mineral wealth, they have hardly any other productions suitable for a local exhibition, such as it is desirable (as Mr. D'URBAN, the curator of the Museum, very truly remarks) should be held in every place visited by the Association.

If successfully carried out, the proposed exhibition must be of much service to all connected with mines, besides being of great scientific interest and importance, as well as of considerable economic and educational value. Devonshire and Cornwall, moreover, produce numerous kinds of building stones of great beauty, which deserve to be better appreciated than they are even now; and if quarrymen and marble-masons will co-operate, and send us specimens of stones, properly prepared to show their capabilities, a very attractive and useful exhibition will be the result. The china and other clays of the two counties are exported in great quantities to the Potteries in Staffordshire and elsewhere, and are also extensively used in paper-making, bleaching, and other manufacturing operations. They should, therefore, be well represented. The committee are also desirous of exhibiting specimens of pottery, bricks, tiles, and drainage pipes, manufactured in Devon and Cornwall. Rock specimens and fossils, illustrating the geological structure of the county, are greatly desired, the attention of geologists having been of late years directed to the determination of the age of those rocks so largely developed in Devon and Cornwall. With a view of making the exhibition as attractive as possible, and to give it a popular and instructive as well as a scientific character, it is proposed to admit models of water-wheels and machinery used in mining, and in crushing and dressing the ores; plans and sections of mines; photographs and drawings of mining buildings; miners' tools and dresses; and anything else which will illustrate underground life. The geological features of the district will, no doubt, be ably described by local geologists; and the committee also hope that well-qualified persons will be found to read papers before the sections on all subjects connected with mines and miners. There is much relating to the modes of preparing and dressing the ores for market, the ventilation and drainage of mines, the health of the miners, and their social condition, which could not be brought forward at a more suitable time than at the approaching meeting at Exeter of the British Association.

HOT AIR VERSUS STEAM AS A MOTIVE-POWER.

The continual accidents which occur by the explosion of steam-boilers, causing such fearful havoc to human life, will be admitted by all to be a subject just now of paramount importance. Scarcely a month passes without adding another frightful catastrophe to the thousand and one already recorded in the *Mining Journal* and other public records of these unhappy accidents. We have paid considerable attention (writes a correspondent, in whose statement every confidence may be placed) to this subject. He inspected the boiler and ruins at Cinder Hill, near Sedgley, some 12 or 14 years since; a frightful catastrophe at Mr. JEFFERIES' Iron Works, Harts Hill, near Dudley, and, last of all, the dreadful explosion of a puddling furnace-boiler at Mr. THOMAS WELLS'S Iron Works, Moxley, where the boiler was carried by steam force through the roof of the works, a large portion falling into the canal, and the remainder scattered in heavy fragments. One piece was sent a considerable distance over the Birmingham Canal. If we remember rightly, about 13 men lost their lives. This last occurred about 12 months since.

This is an appalling state of things, and proves beyond doubt the danger to human life of the use of steam as an agent at high pressure. We are aware that boilers may be made, under certain careful regulations, to keep the steam safe and harmless, but this is not done; experience amply proves it has not been done, and we fear it never will be done. Further, our experience in these matters enables us to say all these accidents have been, and can be, traced either to a want of care or culpable negligence. For example, the iron itself may be bad, or it may have been rendered crystalline or rotten by continual heat, and the sudden changes of temperature to which all boilers are subject every week. The feeding may have been neglected, the plates red-hot, and while the heat of two or three puddling-furnaces is acting against a boiler, cold water is turned in. The bottom has probably been repaired with strong plates, clumsily lashed on to weak plates; the great strain in this case would bear upon the weaker parts. The safety-valves may stick, or perhaps while the greater amount of calorific is being absorbed by the highly rarified water in the boiler, the engine stops (as the feed stops at the same time), accelerating at a higher ratio the generating power of the calorific upon the water in the boiler. The egress of the steam at the safety-valves is inadequate to the increased supply of steam, and an explosion in this state of fire and confined water and steam becomes inevitable, with its fearful concomitants to human life.

All practical men who visited the appalling scenes above referred to, and two others which we inspected, one at Bradleyfield Iron Works, the other at Millfield Iron Works, belonging to Mr. THOMAS ROSE

will have a vivid recollection of the fearful nature and terrible consequences which ensue from the use of this most useful, but we may say equally dangerous, agent, commonly called steam. Since the days of WATT hundreds of patents have been taken out, with the view of subjugating the dangerous concomitants of this wonderful element, and rendering it a safe and trusty minister, as a motive-power to the steam-engine; but, alas! all have failed, and up to the present moment nothing has been discovered at 7 lbs. pressure to give the same motive-power, through the agency of steam, as WATT's condensing-engine, which is ministered to by steam, with liability to the above accidents, and loss of life.

Our reflections on this subject have been elicited by an accidental inspection which we made yesterday of a hot-air engine and rotary water pump, in daily operation in London, the motive-power being cold air, largely increased in volume by the introduction of caloric, and in this state confined until a pressure is created from 7 to 10 lbs. on the square inch; this compressed air, acting on the piston, gives motive-power at a fourth of the cost of steam. Numbers of these machines or engines, we are told, are working in different parts of this and other countries, successfully and satisfactorily. The construction is very simple, by no means expensive, and the quantity of coal consumed (which is the only fuel used) is 4 lbs. per horse-power per hour. This is marvellous in an economic point of view—indeed, incredible—but we believe it to be perfectly true, which gives a clear saving of three-fourths of the quantity and cost of fuel. The simplicity of the arrangements renders a skilled engineer unnecessary, and as neither steam, water, or boiler is used, explosions are out of the question, the working pressure of the heated air being only 7 to 8 lbs. on the square inch. We propose in next week's Journal giving a plain and comprehensive description of this practical invention, which will be easily understood, and which may place the relative advantage of heated air, with the better known competition as a motive-power, before practical engineers and the readers of the Journal generally.

THE NEW AGREEMENT AS TO THE TIPTON BASIN.

The colliery proprietors in South Staffordshire, who are deliberating as to the nature of the agreement, if any, into which they shall enter for another 14 years, in respect of the draining of some 1200 or 1500 acres of the most valuable of the minerals of that district, will do well to read the article in this week's Journal, upon "Drainage and Pumping," in which the North of England should likewise be interested. As to the Staffordshire men, there is greater need now than there was 15 years ago, when the expired contract was made, that all conditions by which saving of cost can be effected should be observed. Not only is the mineral more valuable now than then, but the competition of other districts is greater, at the same time that the working out of mines increases the facilities for the accumulation of water. After an agreement has been entered into, founded upon the completest and most able enquiries attainable, then let there be a determination to have the several engines reported at frequent intervals. The small cost of the reports will be over and over again saved in the increased duty performed at a minimum cost by every pump.

THE BESSEMER STEEL TRADE.—It is understood that Mr. Bessemer has signified his willingness to reduce his royalties from 2½ to 2s. 6d. per ton, except for steel rails, for which a rebate of 20s. per ton is already allowed. Ordinary Bessemer steel will thus be reduced nearly 2½ per cent, and rails about 1½. This will remove all inducements which might otherwise exist to infringe the patent-rights remaining to Mr. Bessemer after the expiry of his principal patents in the course of next year, and at the same time will give an impetus to the steel rail trade, by permitting the steel rails to be sold in the market at a price but little higher than that of iron. If the Heaton process should solve the question of converting cheap pig-iron into steel, iron rails may, probably, be entirely displaced.

ACCIDENTS IN COAL MINES.—The Government have a bill upon this subject in course of preparation. In reply to Mr. Greene, it was announced by Mr. Bruce, in the House of Commons on Thursday evening, that he hoped it would be introduced in about a week's time.

THE EXPORT COAL TRADE.—The exports of coal from the United Kingdom appear to be still increasing, having amounted in the two months ending Feb. 28 this year to 1,287,312 tons, as compared with 1,257,397 tons in the corresponding period of 1868, and 1,182,959 tons in the corresponding period of 1867. To these totals the exports of February in each year contributed 663,665 tons, 582,227 tons, and 622,069 tons respectively. The exports to France in February were 160,656 tons, as compared with 153,571 tons in February, 1868, and 173,375 tons in February, 1867; and in the two months ending Feb. 28 328,570 tons, against 324,466 tons in 1868, and 332,687 tons in 1867 (corresponding periods). The exports have increased this year to Russia, Prussia, the Hanse Towns, Spain, Italy, Brazil, &c.; but they have decreased as regards Sweden, Holland, the United States, and British India. The value of the coal exported in February was 332,276l., as compared with 299,341l. in February, 1868, and 324,557l. in February, 1867; and in the two months ending February 28 this year 647,617l., as compared with 655,462l. in the corresponding period of 1868, and 625,571l. in the corresponding period of 1867.

WIRE-ROPE TRANSPORT.—The practical value of the wire-rope transport system, invented by Mr. C. HODGSON, C.E., is now becoming fully recognised by those engaged in working mines. Sir G. S. Robinson has given an order to the Wire Tramway Company to construct one of their patent ways, for carrying iron ore from his quarries to the Cranford Station, and the company have several negotiations pending, which are delayed only for obtaining the necessary way leaves. For the transport of minerals from the mine to the shipping place or railway station the new system appears to offer all the advantages that can be desired.

STREET TRAMWAYS FOR LONDON.—From time to time reference has been made in the *Mining Journal* to the great advantage which would result from the introduction of street tramways in London, and to the complete remedy for the objections hitherto offered, which the rail invented by Mr. Z. EASTMAN, the United States Consul for Bristol, would afford. It is gratifying to find that the evidence which has up to this time been given before the committee appointed by the House of Commons to consider the Metropolitan Tramways Bill is decidedly favourable to the projects. Where the tramways are used the superior speed and economy with which they convey passengers drive omnibuses and cabs from the roads, the facilities for commercial and other traffic being much increased.

THE CROWDED THOROUGHFARES OF LONDON.—Amongst the many great improvements now going on in London to relieve the overcrowded state of traffic, and for opening up new means of communication, "The Tower Subway" is one which deserves especial notice, as forming an easy and safe connection between the two densely populated districts situated north and south of the Thames, between London Bridge and the Thames Tunnel. This work is now in course of construction under the bed of the river, from Tower Hill to Tooley-street, and consists of a tunnel less than a quarter of a mile in length, access being gained to it by a shaft at each end. The depth of these shaft will be 52 feet and 60 feet respectively, in which it is proposed to have plumb lifts for the transit of passengers, parcels, &c., to and from the subway, through which an omnibus running on steel rails is propelled, both being worked by steam-power. In driving the subway, which will be about 22 ft. below the bed of the river, a wrought-iron shield will be employed overlapping the tunnel, provided with doors in the front, through which workmen can drive the heading, but which can be immediately closed on any appearance of water, and so render all water-tight; this shield will be propelled by powerful screws, and as it progresses the tunnel segments inserted. The whole of the work is under the superintendence of Mr. P. W. Barlow, jun., C.E., the engineer, the contractor being Mr. J. H. Greathed, under whose superintendence the shafts are now being sunk by Mr. Thomas Tilley, the well-known Artesian well engineer. The castings for these shafts and the tunnel, which are all made in segmental rings firmly bolted together, as also the manufacture of the shield, are entrusted to the firm of Messrs. Bells, Goodman, and Co., of the Walker

Engine Works and Foundry, Newcastle-upon-Tyne, and Walbrook. The "Tower Subway" was commenced on Feb. 16 last, and as the shaft for the Middlesex side is already sunk to the depth of 60 ft., and the remainder of the work well advanced, it is expected to be opened to the public before the commencement of the year 1870.

COMPRESSED OR ARTIFICIAL FUEL—No. I.

In the grand economy of Nature there is no waste, but whenever her arrangements are disturbed by man, especially in the mining of coal, then, from the very nature of things, and the fact of breaking up such mineral deposits by mechanical means, can be traced the unavoidably great waste always occasioned; and this is especially apparent to those acquainted with the workings carried on in the different coal fields in England and other countries, where millions of tons of slack, or lime coal, are annually lost, either by being left underground, or when brought to the surface allowed to run to waste, simply because it is an article of little commercial value. Then, again, it is also a well-known fact that in the coal fields of Wales, Somersetshire, and the Forest of Dean there are veins of coal in the measures yielding scarcely anything but lime coal, or slack, the working of which, from that fact alone, has yielded scarcely any or no profit after development. Such properties, therefore, often after considerable sums of money have been expended on them have been allowed to remain *in statu quo* for years, and, doubtless, will remain so in a general sense until some scientific and mechanical principle can be profitably brought to bear, and this waste in lime coal be restored as nearly as possible to the original condition, form, and quality of block coal as found in Nature's veins. If this could be successfully effected the collieries which are now comparatively of little value would rise in importance, and be worth as much consideration from capitalists as collieries from which the best block coal is obtained; and this would especially be the case if the cost of the manufactured fuel could be reduced to a scale which could compete with, or at least be equivalent to, the cost of obtaining coal in the usual way. The development of collieries containing veins of coal producing mere slack, or small lime coal, and turning it, together with the waste slack made at collieries in general, into block by a patent process is a subject of vast importance, and one to which too much attention cannot be given. It must, however, be admitted that within the last few years considerable progress has been made in this department of modern manufacture, and no pains or expense spared to accomplish the grand object; however, while we feel it our duty to give credit to those who have devoted their time and money for the public benefit in this cause, and have paved the way for others to effect still further improvements, we, nevertheless, conceive that the subject is too comprehensive, and the field of investigation too extensive, to be easily and readily exhausted. Many persons in the present age devote themselves to a particular line of study, or to a subject in which probably they most delight, or from their natural capacity are fitted and rendered best adapted to produce useful and beneficial results; it does not, however, follow that because an individual has studied a particular subject for a long time improvements are the results of his investigation. No, for in many cases it is far otherwise; however, that the student in his city laboratory may by perseverance through Nature's laws and elements effect a great deal when on the right course of discovery is a fact which we freely admit; nevertheless, too much importance being attached to theoretical investigation renders the results generally obtained of less value than could otherwise be desired. It is undoubtedly most conducive to the public good when the laboratory of science, combined with natural discrimination, keenness of observation, and a thorough practical knowledge, are found in persons who engage in the investigation of a subject that the most valuable results are obtained. We think the assertion is true, and we further believe we are justified in stating that we cannot discover that out of the many practical and thinking persons engaged in and connected with mining operations at the different collieries in the United Kingdom but few, if any, are to be found identified as inventors with the subject of this article. We are the more surprised at this, as the class of men so engaged, of all others, are, from the very nature of their occupation, best qualified to adopt means to an end in mining and its concomitants, especially for the purpose of turning waste elements into a profitable article of commerce. For a long time past a process which would effect the purpose desired has been sought, but, although many patents have been taken out for compressing small coal into blocks, the public have not received them with so much confidence as the different inventors could have desired or claim for them. A new patent process, however, is about to be introduced by Messrs. HOSKOLD and WHEELER, for which they have obtained patents in Great Britain, France, and Belgium, and it may here be observed that the patentees are, one of them a mining, and the other a mechanical, engineer. Anything of the kind, therefore, coming from them would seem to imply practical success. It is claimed, and apparently with justice, that this is the best patent process hitherto discovered. Many specimen blocks of the fuel made by this process have been tested, and are considered to be of excellent quality; indeed, so sanguine are the inventors of the success of this invention that it is their belief it is destined to supersede all other processes hitherto introduced.

REPORT FROM SCOTLAND.

APRIL 7.—The Pig-Iron market closed last week with a quiet but steady business, and opened this week with renewed vigour, under the influence of speculation for behoof of Liverpool houses. Speculators for a rise will have to fight an up-hill battle, as the make is exceeding that of last year by 3000 tons a week; and if this is continued, and added to the 95,000 tons of increased stock last year, it will make an increase in the stocks at the end of the present year of 251,000 tons. With these figures before them speculators may well pause before embarking in an undertaking which contains so few elements of success. Besides, makers are selling about 1s. a ton under the quoted price of warrants, which enables brokers to store with a profit for their adventurous proteges. In Messrs. Connal and Co.'s yard there are now stacked 324,966 tons of pig-iron, with warrants in circulation for 313,200 tons, which is an increase of stock in store for the month of 8774 tons, with a considerably lower average than either of the two preceding months, though better than in the corresponding months of last year, as the following figures will show:—

Averages.	January.	February.	March.
This year	55s. 2d.	55s. 1½d.	55s. 3d.
Last year	52s. 3d.	52s. 4½d.	52s. 9d.

The shipments from the Scotch ports (foreign and coastwise) for the week ending yesterday were 15,933 tons, against 11,479 tons in the same week of 1868, which makes the total increase on the year to date nearly 23,000 tons; while, on the other hand, the Middlesbrough imports have decreased about 9500 tons in the same period. Yesterday the market opened strong, and 53s. 6d. cash and 53s. 9d. a month was paid, but closed easier, with 3d. less offering, at which prices there were buyers over. To-day only a limited business was done, at 53s. 3d. to 53s. 4d. cash, 53s. 6d. to 53s. 7d. a month, closing buyers 53s. 3d. cash, and 53s. 6d. a month, sellers requiring 1d. more. No. 1, g.m.b., 53s. 9d.; No. 3, 50s. 9d.; Coltness, 60s. 6d.; Gartsherrie, 60s.; Langloan, 54s. 6d.; Glengarnock, 55s.; Eglinton, 53s.—all No. 1. Manufactured iron continues in rather vigorous demand, bars being quietest, while all kinds of ship iron is being pushed. At the annual *soiree* of the employees of Messrs. Randolph, Elder, and Co., engineers and shipbuilders, Govan, one of the members of the firm made the pleasing announcement that, instead of the 1500 hands they had employed at the period of their annual meeting last year, they had now close upon 5000 hands engaged; and that if the principle which the firm had originated 16 years ago, for the saving of fuel in the navigation of steamers, was much further carried out he predicted the days of sailing ships would be numbered, and this opened up a hopeful future both to the shipbuilder and the iron trade. There is no change in the price of either bars, angle iron, or plates, although the tendency is to an increase in the two last-named articles. Ironfounders are fairly employed, but brassfounders are complaining of slackness. Tube makers, both here and in the Coatbridge district, are well supplied with orders.

In the Coal Trade there seems to be no elasticity, and with miserable shipments, some of the coalmasters are reducing to half-time. Coals for shipment can now be bought here on terms never before

conceded even in the worst times, and there is no spirit in the demand. The week's shipments (which include a considerable portion of the Canadian demand) only amount to 38,045 tons, against 48,765 tons in the corresponding week last year, with a very much increased home consumption. All descriptions of coal are alike dull, and gas companies must be realising large profits from the cheapness of the raw material. In the Upper Ward, the Haywood Gas Coal Company have "won" the coal in the pits they have been sinking for a considerable time, and they are about to commence with others. Gray and Paul are waiting the completion of a branch railway, to work a valuable seam on the Climpby estate; and they are in process of sinking a shaft to the gas coal on the Wilsontown estate. In the western division of the county, shankers are busy in various localities; and all that is required to open up new pits is a remunerative demand.

In the meantime, the miners are, undoubtedly, in a sad plight, and it is reported that Mr. Alex. McDonald, and a number of young and healthy miners will set sail shortly for the mineral fields of the Great Western Republic, where no beggar is to be seen, and where the cornucopia of plenty is exhaustless. Mr. McDonald has changed his mind before, and may do so again; but his visionary views of the glory of the States may take sufficient hold of some of the more adventurous of the class, and send them off to that "better land" in a state of mesmeric somnolency.

The shipbuilders on the Clyde have had a busy month, 18 vessels, of 17,608 tons, having been launched, 10 of which were iron steamers, 4 iron ships, 2 composite, and 2 small wooden craft, of 95 and 180 tons respectively. The Messrs. Thomson have also concluded contracts for two large iron screw-steamers, of fully 3000 tons, for the Liverpool and New York mail service.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

APRIL 8.—The Quarterly Meetings of the Iron Trade have been held to-day, at Birmingham and yesterday at Wolverhampton. At each there was a good attendance, and especially, of course, at the Birmingham meeting, which is always the more important. The trade is quiet, but, on the whole, there is a steady demand for the kinds of iron chiefly produced in South Staffordshire. The plate trade seems to be going away, like the rail trade, and it is getting accepted almost as an axiom that South Staffordshire can only be busy after the other great districts are full to overflowing.

The first discussion by the Board of Arbitration, established by the masters and men connected with the Iron Trade in the North of England, on the critical subject of wages has, in one respect, exactly fulfilled the anticipations expressed in this letter—that the votes would probably be equal; but, happily, the fear that a dead lock might occur in choosing upon an umpire to decide so vital a question, has been obviated by the fact that a gentleman well known in South Staffordshire—Mr. Rupert Kettle—was approved by both parties. It happens that Mr. Kettle has this very week received a high honour in this county, in having been appointed Assistant Chairman of Quarter Sessions, on the proposition of the Lord-Lieutenant (the Earl of Lichfield), and was elected by a very large majority over a very able, active, and popular magistrate, the brother of the late earl, whose election was strongly supported, on the ground that he was a member of a county family. Mr. Kettle is worthy of both honours, but each draws with it, as all honours should, a very heavy responsibility. As yet it has not been announced whether Mr. Kettle will accept the arbitration of the wages dispute in the North of England. If he should, he will have a very difficult task. The question is—What is to form the basis of a decision? Is it to be whether labour is scarce compared with the demand for it? which political economists argue must, and will ultimately, determine the rate of wages; or is it to be the question whether the masters' profits have increased sufficiently to cover an advance in the rate of wages? The elements of the question are so numerous and various, and there is so little general agreement as to them, that Mr. Kettle is not to be envied his task. As these meetings go on, and experience tests the wisdom of decisions, a general assent will be, probably, gained to certain leading principles. One which seems likely to be prominently brought out is this, that, looking at the question in the light only of the advantage of the workmen, an advance of wages is by no means always to their benefit. Wages and prices have been raised within a few years in the iron trade, with the result of checking recovery, and of sending orders away which would have come to this country, and hence Mr. Kettle may ask himself whether, if wages were now advanced, the men would be likely, for the next three months, to be better off, whether shortness of work would not, probably, reduce their earnings more than an increased rate would augment them? If the question had to be decided with reference to South Staffordshire, possibly hardly any doubt could be entertained that the answer would be against increase, and any such step would be regarded by the masters in this county as most serious, since they could hardly avoid following in the wake of another district. Everybody will look with interest for the discussion of the question before the arbitrator, and his decision, and the grounds for it.

The reports of Mr. B. Baker, the Factory Inspector for this district of the country is very elaborate. He is very hopeful that the Factories Acts will be heartily accepted in a short time. He, however, acknowledges, and his Sub-Inspectors with still more distinctness, that the educational provisions have so far produced no effect—that boys under 13 have been generally discharged from the iron works and the hardware works, and that they have not to any considerable extent gone to work; but that whilst many have been driven to idleness, others have resorted to the smallest shops, which abound, exchanging, as a rule, comfortable places of work, with regular hours, for wretched little cells or hovels, where there is little regularity, and that the exchange to which is in all respects a detriment. All the Sub-Inspectors appear to agree that the Work-shops Act is—except in a few rare cases—a dead letter, and so long as the best conducted establishments are regulated and restricted, and the worst left alone, the result must be evil. Whatever provision is made must be uniform. Mr. Baker hopes, and with some grounds probably, that if work were to become brisk masters would try to adopt the half-time system, but to ensure this all labour must be dealt with on the same terms, or the children will be sent where there is no interference. Captain May, the Sub-Inspector in North Staffordshire, almost suggests that boys should be allowed to work at nights in iron works, though he does not venture to do so openly. It is quite evident that the extension of these Acts was hastily accomplished, and that the question needs revision.

The inquest connected with the flooding of the Lock's Lane Colliery, at Brierley Hill, has terminated in a verdict of "Accidental Death." The jury appended to their verdict a recommendation that in future dams similar to that which gave way should be more frequently examined by the officers of the mine.

The South Staffordshire and East Worcestershire Mine Agents' Association disappears, and the South Staffordshire and East Worcestershire Institute of Mining Engineers takes its place. At a meeting on Monday, presided over by Mr. David Peacock, change of name and of rules—those of the North of England Institute of Mining Engineers being adopted—was formally and finally made. At this first meeting of the Institute the proposal of the Imperial Union Assurance Company (Limited) to ensure to miners in case of accident, or their families in case of their death, a certain provision was discussed and approved. The proposal is—

"That by a payment, to be made in advance half-yearly by the masters, equal to 3d. per man and 1½d. per boy weekly, the company will in case of fatal accident pay to the representatives of the former 15l., and to the latter 5l., and in case of partial disablement they will pay 6s. per week in the case of a man, and 3s. per week in the case of a boy, the master collecting the weekly payments from the chartermaster or the men."

A member of the firm of Messrs. Samuel Groucutt and Sons was present, and stated that they had adopted it; and it was reported that several other firms contemplated falling in with the proposal. Any such provision is desirable, and doubtless the Institute, before approving it, satisfied themselves that its financial basis is thoroughly sound. A sum of money was contributed at the meeting towards the fund being raised for the purpose of presenting the brave fellows who rescued their comrades from the colliery at Brierley Hill with some mark of the admiration their conduct has excited, and they suggested that each should have a silver watch, with a suitable inscription—a very appropriate present.

An inquest as to the death of Henry Careless, who lost his life last week at the Reddall Collieries, Cradley Heath, through falling down the shaft from overwinding, resulted, on Tuesday, in the committal of the engineman,

Benjamin Danks, for manslaughter. His only excuse was that the bell did not ring as the skip was raised, because the skip had only been lowered a part of the way down the shaft, but he knew that fact, he had an indicator, and also the token on the chain. The banksman had left an assistant, a youth, in charge, who appeared by no means intelligent at the inquiry, and who in his hurry to push the runner over the shaft slipped down, and so the poor fellow who fell from the skip was killed. It came out that the rule requiring that the engine-man should send a return signal to the banksman was not complied with, and no means of doing so existed.

At the Burslem Police Court, on Tuesday, Levi Leese, an engine-man, was fined 5s. and costs for a breach of the 88th rule, by taking lucifer matches into a part of the North Staffordshire Coal and Iron Company's colliery at Talke, where lamps only were allowed to be used, and he was warned that had it not appeared that it was merely inadvertence he would have been sent to prison. John Brindley, a miner, was fined in the same amount for firing a shot, instead of leaving it to the fireman. It was a slight breach of the rule, the train having gone out after the defendant had fired it, but strict obedience to the rules is most important.

The following are the returns of blast-furnaces to March 31:—

Works.	Firm.	Built.	In blast.
Chillington	Chillington Iron Co.	4	2
Parkfield	Parkfield Iron Co.	5	5
Millfield	Union Iron Co.	4	0
Oster Red	Oster Red Iron Co.	3	1
Stow Heath	W. and J. S. Sparrow and Co.	4	2
Willenhall	Fletcher, Solly, and Unwilek.	3	2
Moseley Hole	Chillington Iron Co.	3	0
BILSTON.			
Priestfields, New	W. Ward and Sons	2	1
Bilston Brook	Brook Furnace Co.	3	2
Herbert's Park	D. Jones	1	0
Barbon Field	Barbon Field Co.	2	2
Caponfield	J. Bagnall and Sons	3	1
Spring Vale	A. Hickman	3	2
Deepfields	Deepfields Iron Co.	3	1
Coseley	Forley	3	2
Priorfields	H. B. Whitehouse	3	3
Stonefield	Stonefield Iron Co.	1	1
Bradley	G. B. Thorneycroft and Co.	2	2
Bovercux	Baldwin and Co.	2	1
WEDNESBURY.			
Rough Hay	Addenbrook and Co.	3	2
Old Park	Patent Shaft Co.	3	3
Broadwater	Groucutt and Sons	3	3
Darlington	Darlington Iron Co.	3	3
TIPTON.			
Wednesbury Oak	P. Williams and Sons	3	2
Willingsworth	J. Brayford	3	2
Tipton	—	2	0
Tipton Green	W. Roberts and Co.	4	4
Coneygree	Earl of Dudley	3	2
Park Lane	J. Colbourn and Sons	2	1
Horseley	ditto	2	2
Groveland	A. Hickman	2	1
Tivdale, The Haage	Round Brothers	2	1
Dudley Port	—	2	0
WEST BROMWICH.			
Gold's Hill	J. Bagnall and Sons	3	2
Union	P. Williams and Co.	3	2
Crookhay	W. and G. Firmstone	4	3
Oldbury	—	4	0
The Cape, Smethwick	B. Richards	1	0
Stour Valley	J. and S. Onions	2	2
WALSLEY.			
Birchills	Williams Brothers	2	0
Hatherton	W. Fryar	2	1
New Birchills	Birchills Estates Co.	4	0
Bentley	Chillington Iron Co.	2	1
Pelsall	B. Bloomer and Sons	2	2
Green Laues	J. Jones	2	2
DUDLEY AND EAST WORCESTERSHIRE.			
Congreaves	British Iron Co.	6	4
Dudley Wood	N. Hingley and Sons	4	2
Witlymoor	W. H. Dawes and Sons	2	2
Windmill End	J. H. Pearson	3	2
Netherton	J. and S. Onions	2	2
New Netherton	M. and W. Grazebrook	2	2
The Level	Earl of Dudley	4	2
Woodside	Cochrane and Co.	3	2
Old Level	J. Holcroft	3	0
Shutts End	J. Bradley and Co.	4	0
Oak Farm	Sir S. Glynn, Bart.	2	0
Corbyn Hall	W. Matthews	3	1
New Corbyn Hall	S. Hingley and Co.	1	1
The Lays	R. Gibbons	4	0
The Buffery	W. and G. Firmstone	3	2
Parkhead	J. Jones	1	0
Old Hill	Evers and Martin	2	1
	D. Rose	2	0

Total 172 97

At a corresponding date last year the number of furnaces in blast was 86, showing a difference in favour of this year of 11.

REPORT FROM NORTHAMPTONSHIRE.

APRIL 8.—From several of the large ironstone fields a very fair export business is being done to various parts of the kingdom, and, considering the unlimited character of the supply, it is rather surprising that capitalists have not extended their operations more than they have done in the raising of the valuable beds of ore with which the greater part of the county teems. At Wellingborough there is now a good deal of activity, and that place gives promise of becoming a very important centre for the manufacture of pig-iron, seeing that on either side of the railway which passes it there is an almost inexhaustible supply of stone, worked on the surface, from 8 ft. thick and upwards, and containing in some places upwards of 40 per cent. of iron. Recently the Messrs. Butlin have been busily engaged in extending their new works near to the station, and have just put their second furnace in blast, which has been erected on the most improved principle, under the superintendence of Mr. W. Butlin. The site, we believe, has also been marked out for other two furnaces, so that there will ultimately be a cluster of four, in addition to the two belonging to the same firm nearer to the town. At present there are no less than six blast-furnaces within view of, and close to, each other, the Glendon Colliery having both of theirs in full operation. Higher up in the Blisworth and Gayton districts a fair business is being done, a good deal being sent away by the London and North-Western Railway. The Midland also is taking a large tonnage into Derbyshire and Yorkshire, Messrs. Butlin alone exporting by that line something like 2000 tons per week, whilst their own consumption is 1300 tons weekly. No great inconvenience is experienced from what has generally been supposed to be a drawback to the development of the mineral wealth of the county—the want of coal in the neighbourhood. Seeing that there is a large demand for the stone in districts where there is plenty of coal and coke well adapted for furnace purposes, the wagons, after discharging their cargoes of ore, are loaded with the fuel, so that, in fact, there are some advantages to be found in the reciprocal agreement. Therefore, it will not be surprising to travellers by the Midland System to see the Northamptonshire wagons with ore at various stations on the Erewash Valley line, and more northerly still, at Clay Cross, Staveley, Eckington, and as far as Chapelton and Thornecliffe, near Barnsley. At Mr. Heaton's Works, at Langley Mill, the Northamptonshire iron has been found remarkably well adapted for converting into steel by the nitrate of soda process, and there is very little doubt but that should Mr. Heaton's system come into general use—and of which there is every appearance—from the small capital required in the construction of the necessary converting machinery, that the system will be adopted in Northamptonshire, should the enterprise of the last ten years only be kept up. We may say that in the adjoining county of Leicester there is a good deal of ironstone, and we were not a little surprised to see a number of men getting the ore quite close and within a few feet of the Midland Railway. Near to the works of Messrs. Butlin's rolling-mills are being put down, but for some reason—most probably the quietness pervading the trade—they are being progressed with rather slowly. Still the district appears to hold out facilities for such works that a revival of the iron trade cannot help having a highly beneficial effect with regard to the county of Northampton.

REPORT FROM MONMOUTH AND SOUTH WALES.

APRIL 8.—The engagements entered into by the ironmasters of this district during the past week are below the average, but this is satisfactorily accounted for by the Easter holidays and quarterly meetings, which have caused the slight cessation of business transactions referred to; but now they are over there is every probability of a return to that activity which has characterised the trade since the commencement of the new year. Some good orders are expected to be shortly given out, and if the Russian and American buyers operate to any considerable extent for rails, it will undoubtedly tend to an advance in prices in the month of May or June. The leading makers of the district evidently anticipate this favourable state of things, or they would not have refused several good specifications at present rates. From other districts reports have come to hand, stating that orders are being received only sufficient to keep going from hand to mouth; but makers in South Wales are undoubtedly in a much better position, the rail mills being kept regularly running, and will continue so during the summer months, if no more orders are received for the next couple of months. The Russian demand continues good, and the makers in this district have secured a considerable portion of the engagements. At the local ports something like activity is evinced in the shipment of rails to the United States and South America, and at the port of Newport

alone nearly 20 vessels are entered outwards to take rails to New York, and at Cardiff there is an equal if not a larger number. The iron now being sent to the continental markets consists chiefly of bars, for which there is a fair demand, at prices having an upward tendency. There are but few enquiries for plates; but as an improvement has set in in the iron shipbuilding trade there is a fair prospect of a speedy increase in the demand. For some of the miscellaneous descriptions there are numerous enquiries, and a large amount of business is expected to be transacted during the ensuing week. Pig-iron is in better request, and prices are firmer than they have been for two or three weeks. Tin-plates command a ready sale, and makers have sufficient orders to keep the mills regularly going.

The Steam Coal Trade is not characterised by any degree of briskness, but this is not owing so much to any great falling off in the demand as to a want of vessels of suitable tonnage, the easterly winds which prevailed for so many days having prevented vessels of large tonnage arriving at the local ports. The recent order of the Admiralty, removing the restrictions on the use of North Country coal in the Navy, has to some extent tended to increase the present dullness; but this, it is generally believed, will only prove temporary, for, like many previous orders, it will practically have no effect. The superiority of Welsh coal to that of Durham and Northumberland is clearly proved by a series of experiments by naval officers of considerable ability and experience. Transactions with South America have not increased during the week, but considerable quantities are being sent to the French markets. To the other continental markets shipments are not so large as of late, but the advices just received indicate an improvement in the demand before long. There are more enquiries for house coals, but the season has now too far advanced for any large increase in the consumption to take place.

The disagreement referred to in previous reports as existing between the Pontypool Park Estate Trustees and the Ebbw Vale Company, is not yet settled; and it is now believed that the Trustees will not make known their intention until the close of the present quarter. Hopes are, however, entertained of the Trustees accepting the proposals made by the company, who are now repairing one of the blast-furnaces at the rail works, with the view of blowing in the same as soon as the repairs are completed.

The LLYNVI COAL AND IRON COMPANY have been nominally convicted of an infraction of the Truck Act. Mr. Justice SMITH, after hearing, with the assistance of a special jury, the case of "Pillar v. the Llynvi Coal and Iron Company," having remarked that as the main question was one of law, he should enter a verdict for the plaintiff, with leave to the defendant to move to enter a nonsuit as a verdict, the Court to draw inferences of fact, and the damages, if the verdict was for the plaintiff, to be referred to some gentleman, to be agreed upon, so that they might be assessed upon the principle which the Court might lay down. A verdict was entered accordingly. Now, that the Truck System is liable to abuse cannot be questioned after the many cases of injustice that have occurred under it, but it has its advantages as well as its disadvantages—it frequently causes the earnings of the workman to be expended upon food and clothing for his wife and family, when otherwise the whole would be wasted upon drink. The plaintiff had been 10 years in the defendants' employ. He used to take a check to the storekeeper and get from him a ticket. He got checks sometimes on account, and when he got them holes were perforated on the card. The ticket would show the amount that was coming to him. Cash was never paid except by check on the bank of Bridgend. He could get the checks cashed at shops not under the company by the payment of 6d. He used to take the checks to BRITANN'S shops for provisions, and could not obtain more than about 4s. upon each 12. cheque, the remaining 16s. being taken by the plaintiff in goods. It appeared that the provisions were usually supplied before the wages were due, but after they had been earned. On the pay-day the wages were paid, deducting the amount which had been received in goods for the advance cheques issued by the company. For the company it was submitted that the plaintiff was not an artificer within the meaning of the Acts. Then, it was said, as regards the doctor's sick and school fund, that even if he were an artificer it did not amount to a payment or set off of goods within the meaning of the section of the Act; and, lastly, it was submitted that the balances belonged to an account stated, and that the settlement put an end to the account.

THE NORTH OF ENGLAND IRON AND COAL TRADES.

MIDDLESBROUGH, APRIL 7.—The most important event of the week has, undoubtedly, been the meeting of the Court of Arbitration and Conciliation in the Iron Trade, at Darlington, on Monday. A protracted discussion arose on a report presented from the Standing Committee, who, having fully considered the question of the advance of wages sought for by the men, and compared the prices now obtained for manufactured iron with the prices obtained in 1867, when the last reduction took place, certified that the evidence supplied to them as to the correctness of the contract prices quoted by the respective employers was satisfactory, and fully bore out the statement which they had placed before the board at the last meeting. It was found by the committee that the returns given of plates for 1867 showed the average net cash price at works to be 74.4s. 9d., as compared with 71.3s. 7d. for 1869. In bars, the returns for 1867 gave 67.4s. 3d. as the average net cash price at works, as compared with 67.0s. 6d. for 1869. The returns for rails also showed a reduction of 1d. per ton, as compared with the prices obtained in 1867. Several of the master representatives pointed out that with these prices it would be ruinous for them to offer or consent to any advance of wages at present. The operative representatives, on the other hand, contended that when the last reduction was made in their wages the masters promised an advance when trade improved. In accordance with this latter argument, it was moved that the Court consent to an advance; but this proposition, having equally divided the meeting, it was agreed to refer the question to the arbitration of Mr. Rupert Kettle, of Wolverhampton, a gentleman who has had large experience in matters of arbitration. Meanwhile each party is preparing evidence to lay before the arbitrator.

At the Cleveland weekly iron market, on Tuesday, there was a good attendance, and prices were firm at the current quotations. There is a larger demand for pig-iron on both home and foreign account. The Scotch trade in this department shows an increase of 9000 tons during the past three months, as compared with the corresponding period of 1868. Stocks are low, and warrant stores are decreasing. The list rates are—No. 1, 49s.; No. 2, 47s. 6d.; No. 3, 46s.; No. 4, 45s. 6d., net cash, f.o.b. at Middlesbrough, or on trucks at makers' works. From statistics just made up under the auspices of the Cleveland Ironmasters' Association we learn that the make of pig-iron during March amounted to 98,408 tons, as compared with 80,808 tons for the same period of 1868. The shipments foreign from Middlesbrough for the month ending March 31 amount to 8398 tons, as compared with 7435 tons for the corresponding month of 1868. The shipments coastwise for March amount to 12,687 tons, as compared with 17,521 tons for the corresponding month of 1868. Makers' stocks on March 31 contained 47,114 tons, as compared with 83,894 tons for the same date last year. The warrant stores at Middlesbrough contained on March 31 last 67,486 tons, as compared with 70,547 tons for the same date last year. Several new blast-furnaces are in course of erection in this district at the works of Samuelson and Co. (Newport), the Clay Lane Iron Company, Steavenson, Jacques, and Co., and Swan, Coates, and Co. The manufactured iron trade is steady, plate mills are well employed. There is a good demand for forge iron, and many buyers are desirous to enter into transactions for delivery over the present year. The bar-iron trade is still dull, although scarcely so languid as formerly. In this locality there is a steady and active demand for coals and coke, consequent upon the increased briskness in the manufacture of iron. The trade, however, has rather fallen off for the Lancashire districts, and shipments continue small. For the Danish, Russian, and Swedish ports there is a better demand for coal vessels. There has been no advance in rates since our last report.

TRADE OF THE TYNE AND WEAR.

GATESHEAD, APRIL 8.—The severe weather has much retarded the progress of business, which has been small during the past week, for the season, but as moderate weather has now set in more enquiries may be expected for vessels and cargoes. The arrivals in the Tyne have been 230 vessels, 90 being from foreign ports. A good demand for the

Baltic may be expected shortly, and coke rates to Spain still continue to advance. The arrivals at and sailings from the Wear and the Hartlepool have also been moderate, owing to the inclement weather, but the tone of trade generally is decidedly better, and increased rates for freights may be expected shortly. The foreign coal trade will soon be fully opened, and an improved demand for all kinds of coal, but especially for steam coal, may be confidently expected. The decision come to by the Admiralty has already given a considerable impetus to the steam coal trade, and better times are now looked for. The presence of a Government agent for the purpose of arranging for the purchase of coal for the Government is a most significant fact, and highly encouraging to the trade generally. It is evident that the system pursued hitherto has been very imperfect, and not calculated to do justice to any particular coal field. The appointment of responsible agents authorised to visit the coal fields, and make personal inspection of the coal their business, appears to be more satisfactory, as the real merits of each particular coal will in time be pretty well ascertained and understood, while the Government will be enabled to buy in the best and cheapest markets, without confining themselves to any particular navy list.

Complaints of little employment still continue to be too frequent at the large works at Harton, near South Shields. A large number of men have been discharged consequent on the stopping of the "night shift," the pit having been worked double-shift a considerable time, but this second shift has been now abandoned, on account of the continued dull trade. The new winning at Throckley, about seven miles west of Newcastle, progresses but slowly, a good deal of water having been met with, which has much retarded operations, the sinking of the shaft progressing slowly in consequence. Of course the dull state of the coal trade prevents new winnings generally being pushed with much vigour.

A general meeting of the North of England Institute of Mining Engineers, which should have been held on Saturday, will be held at the rooms of the Institute on the 10th inst. A number of members are to be elected, as usual at all the meetings, and the business to be brought forward is important. The meeting will be special, for the purpose of electing a vice-president in the room of Mr. T. F. Spence, resigned. The following papers will be open for discussion:—Mr. J. Nelson "On the Mechanical Firing of Steam-Boilers;" Mr. A. L. Steavenson, "On the Lemielle Ventilator." Interesting and useful discussions may be expected on these papers, and a full report will be given in next week's Journal.

A most extraordinary strike took place this week at the Thornley and Ludworth Collieries. The men, as at most of the works in South Durham, are engaged for one year, and the annual binding took place three weeks ago, when certain reductions, to take place on the commencement of the term of hiring (on the 5th inst.) were made. However, on Monday last the men refused to work on the reduced terms, and struck, notwithstanding that they had signed the bond. It appears that they protest that they were not made acquainted with the reduction—a most extraordinary statement, certainly; however, further light will be thrown on the matter shortly. It is a most disagreeable business, and, to say the least, it appears to be rather a rash proceeding on the part of the men to strike in the face of a bond duly signed. Surely, this case might have been decided by arbitration; and, should the Arbitration Court recently established in the iron trade here prove successful, the establishment of a similar one for the coal trade is most ardently to be desired.

REPORT FROM DERBYSHIRE AND YORKSHIRE.

APRIL 8.—The iron works are in about the same state as they have been for a considerable time past, in but few branches there being anything like activity. Castings of a heavy character are in slightly better request, but there is little doing at some of the works in those large pieces of machinery which kept them at work for the Midland station at St. Pancras, the girders for which were made in the neighbourhood of Codnor Park. The steel works are only kept moderately going, but nearly all the furnaces are now in blast, with the exception of those at Wingerworth, which have been out for some time. At Eckington, Staveley, Clay Cross, and Stanton the furnaces are kept fully going, so that the output of pig-iron is very large, notwithstanding the fact that the Iron Trade is so very dull. The Coal Trade is better than it has been, and the tonnage going to London in particular showing a very large increase in the month. The Midland Railway Company is now carrying a much heavier tonnage than ever it has done before, the increase being fully four-fold when compared with the corresponding month of last year. On the other hand, there has been a large falling off in the traffic by the London and North-Western Railway, which must tell seriously on the next dividend unless some change is made. It is said, however, that a meeting will take place in a few days for the purpose of lowering the rate, but it is evident that any alteration cannot materially affect the position of the Midland Company, which, from its proximity to the metropolis, is in an exceptional state to nearly all the other lines.

In Yorkshire there has been a good business doing at the iron works, the demand for rails in particular being very extensive, the brands of the Messrs. Dawes being in great request, and the orders so extensive that the firm have been unable to carry them out as quickly as required. A new mill, however, is being put down, which will be the means of still further increasing the trade of the district. There is more doing in Bessemer steel, and it is said the rail-mills of the Messrs. Cammell and Co. (Limited), now being worked at Sheffield, are to be brought to Penistone, where there are greater facilities than at the old place. There is rather more doing in house coal to London, although prices are still very low. To Lancashire, also, there is a very fair trade in engine fuel, but at prices which are far from remunerative. In the neighbourhood of Nottingham business has considerably improved since the Easter holidays. Coke continues in very good request for the iron works in the Trent, and also for some of those in Derbyshire and Northamptonshire.

THE DISPUTES AT THE SOUTH YORKSHIRE COLLIERIES.—There can now be no question as to the fact that the Miners' Association is fast losing ground at those collieries where the men are out, and that the money in several instances now being paid away will all be so much money lost. At Denaby Main, which our correspondent visited on Thursday afternoon, he found the whole place in a tumult, and every indication that a serious disturbance will ultimately be the result. The proprietors have now as many men at work as they require, whilst Mr. Pope, the managing partner, said that the applications for work were so numerous that he had to refuse to set on very many of those who would work, despite every annoyance. He also asserted, most emphatically, that on no consideration whatever would any of the old hands, whether they offered themselves as Unionists or non-Unionists, be allowed to work for the company. What, then, is to be gained by the Union paying those men 150s. a week under such circumstances? The shouting and annoyance cannot be worth so much money, seeing that any person, not wilfully blind, can in a moment discern that all chances of a reconciliation are hopeless. At the colliery itself the serious has given way to the ludicrous in more than one respect. The shift, it appears, ends every day at 2 o'clock, and about that time the old hands, who have improvised a whistle band with drums, proceed as near to the colliery as they can get, and there wait until the men start for their houses, about a quarter of a mile distant, and accompanied by a vast body of women and children, escort them home, amid derisive cheers and shouts. On Wednesday and Thursday the programme was altered. On the former day one of those termed "black sheep" seized a black flag, and to avenge such a dishonour, the old hands mustered in great strength on Thursday, and there must have been nearly 800 persons close to the colliery when the shift was ended. To give effect to the scene, a figure was dressed up as a collier, and, with a face remarkable for its blackness, was carried before the men working as they proceeded to their houses at Sparrow Barracks. They were cheered, shouted at, and every endeavour possible was made to cause a breach of the peace. The men, however, behaved with great forbearance, and, escorted by a large body of police, arrived safely at their homes. Several new houses are being built quite close to the colliery, and for which there are plenty of applicants. The dispute, so far as the company is concerned, is without the slightest significance, seeing that there are more applicants for work than can be employed. On Saturday the glass bottle makers are going to distribute a quantity of bread to the unemployed, and there is to be a meeting on the occasion.

ROCK-BORING MACHINE PATENT FOR SALE.

SIX YEARS' PRACTICAL EXPERIENCE with these MACHINES has enabled the Advertiser to design one which he can confidently recommend as perfectly adapted for the purpose intended, and free from those liabilities to casualties which necessarily attend mechanical inventions of this description in their earlier stages of development. FOR SALE, on exceedingly reasonable terms. No risk. Completion of purchase on proof of action. A bona fide and rare opportunity of realising a fortune. Demand unlimited. Particulars from the inventor, Mr. HENRY BRENTON, Mining Engineer, Gonnis Lake, near Tavistock, Devon.

TO INVESTORS.

THE LONDON SHARE AGENCY'S CIRCULAR for April contains SOUND ADVICE as regards INVESTING MONEY; also, a list of best-paying and most promising undertakings, including Mines. A valuable guide sent by post for one stamp. OFFICE,—101, LONDON WALL.

RAILWAY WAGON WORKS, BARNSELY.

MESSRS. G. W. AND T. CRAIK
ARE PREPARED TO
SUPPLY COAL AND COKE WAGONS
OF EVERY DESCRIPTION,
Either for cash, or by deferred payments through wagon-leasing companies.
WAGONS PROMPTLY REPAIRED.

TANK LOCOMOTIVES,
FOR SALE OR HIRE.
HENRY HUGHES AND CO.,
LOUGHBOROUGH.

RAILS FOR SIDINGS, &c.,
OF DOUBLE-HEAD, FLANGE, and BRIDGE SECTIONS,
CHAIRS, FISH-PLATES, AND POINTS AND CROSSINGS,
COLLIERY RAILS for underground and tramways,
In stock, for prompt delivery, by
ROBERT WRIGHTSON, IRON MERCHANT
NEWPORT, MONMOUTHSHIRE.

THE BEVERLEY IRON AND WAGON COMPANY
(LIMITED),
MANUFACTURERS OF RAILWAY WAGONS, WHEELS
AXLES, LORRIES, CARTS, WOOD WHEELS, &c.,
IRONWORKS, BEVERLEY, YORKSHIRE.

IMPROVED APPLICATION OF WATER POWER.
THE TURBINE.

MAC ADAM BROTHERS AND CO., ENGINEERS, SOHO
FOUNDRY, BELFAST, after twenty years of experience, have brought
their IMPROVED TURBINE to great perfection.
It is applicable to all practicable heights of fall, giving much greater power
from the water than any other kind of water-wheel.
On low falls it has the great advantage of not being impeded by floods or
backwater.
It is particularly well adapted for situations where the quantity of water is
variable, and where all other wheels fail.
Its motion is extremely regular, and, when desired, a governor can be applied
effectively.
This wheel is at work in a great many places, to which reference will be given.

COLLINGS' PATENT SPONGE CLOTHS,
FOR CLEANING STEAM ENGINES, EVERY DESCRIPTION
OF MACHINERY, LAMPS, WINDOWS, &c., &c.
Being a woven fabric, they are easily washed, say 20 times, consequently do not
cost one-fourth the price of cleaning waste.
TRADE ALLOWANCE MADE TO DEALERS, FACTORS, AND AGENTS.
Samples and prices upon application to—
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TO COLLIERY PROPRIETORS.

UPWARDS OF 6000 LARCH, 4000 OAK POLES, 200 OAK and
OAK PLANKS upwards of 20 feet long; ELM COAL-PIT RINGS, ready
cut, in stock.
All kinds of ENGLISH TIMBER supplied in the round, and OAK and LARCH
SCANTLING cut to sizes for railway and coal-wagon building.
Dealer in all kinds of BRITISH TIMBER.
MILLWRIGHTS, ENGINEERS, COACH BUILDERS, WHEELWRIGHTS,
&c., supplied on the most reasonable terms.
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No. 63, GRANBY ROW, MANCHESTER.

IN THE TOWER FOUNDRY IS THE TYNE DEPOT FOR
MACHINERY of every description for WOOD and IRONSTONE, CORN-
CRUSHING, and PUG MILLS. Also, AGRICULTURAL IMPLEMENTS.
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PURCHASERS OF PORTABLE ENGINES and STEAM CRANES will do well
to ask G. HABLE'S price for the same.

HESLOP AND WILSON,
IRON, METAL, AND GENERAL MERCHANTS,
AND ENGINEERS,
40, DEAN STREET, NEWCASTLE-ON-TYNE.
EVERY DESCRIPTION OF MACHINERY, ENGINEERS' TOOLS, &c. Por-
table and stationary ENGINES, MILLS, PUMPS, TURBINES, PATENT
FANS, AGRICULTURAL MACHINERY, and IMPLEMENTS, STEEL TYRES,
RAILS, &c.
COLLIERY STORES—Ropes, Spun Yarn, Waste, Leather, Shovels, Picks,
Nails, Chain, Bar-Iron and Plates, &c. Solid Cast-steel Sinkers' Hammers and
Picks. Brass and Iron Tubes, Nuts, Bolts, Rivets, &c.
ESTIMATES, DESIGNS, TRACINGS.
Price-book on application.

GENERAL MINING COMPANY FOR IRELAND
(LIMITED).
MAKERS OF ZINC OXIDE.
OFFICES,—29, WESTMORELAND STREET, DUBLIN.
MINES AND WORKS, SILVERMINES, COUNTY TIPPERARY.

The Directors beg to intimate to PAINT and COLOUR MAKERS, INDIA
RUBBER MANUFACTURERS, SHIPPERS, and the TRADE generally, that
they have COMPLETED the ERECTION of WORKS for the MANUFACTURE
of ZINC OXIDE, and that they are now producing ZINC WHITE of GREAT
EXCELLENCE and PURITY.
Samples and terms shall be forwarded on application.
H. C. FOWLER, Secretary.
29, Westmoreland-street, Dublin, December 10, 1868.

BRITISH, COLONIAL, AND FOREIGN PATENTS'
REGISTRATION OF DESIGNS, COPYRIGHTS, TECHNICAL TRANS-
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Mem. Soc. Arts, Assoc. Soc. Engineers, Compiler of the "Inventors' Almanac,"
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ters. Printed information sent free by post. Specifications drawn and revised.
Searches conducted. Abstracts, Cases, and Opinions drawn.
Offices, 68, Fleet-street, E.C., London, corner of and entrance in Whitefriars-
street.

A MINING ATLAS, DESIGNED TO CONVEY COMPLETE
INFORMATION CONCERNING THE CHIEF MINING DISTRICTS IN
GREAT BRITAIN AND THE UNITED STATES OF AMERICA.
By THOMAS SPARGO.
GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C.
The work contains surface plans showing the geological formation of the
various districts, and longitudinal and transverse sections of some of the most
important mines in the United Kingdom, with observation upon their position,
character, and working. Geological and parish maps of Cornwall, Devon, Car-
diganshire, and the Isle of Man, showing height of hills, &c., have been prepared
with the greatest care. Maps intended to illustrate the progress of mining in
North America have been executed with great fulness and punctilious exacti-
tude. A map of the United States and territories shows the divisions of each,
with the mining districts of Nevada, Colorado, Idaho, New Mexico, Wisconsin,
and the line of railways connecting the Atlantic and Pacific. Mr. Whitney,
Commissioner for the Union to the Paris Exhibition, prepared a map of the
great mining region of Colorado for the occasion, and has presented the plates
to the author, for this work. A surface map of California shows the position of
the mines in that great mining region.
The work will embrace explanatory notes, definitions, and illustrations of
mining terms—such as shaft, level, cross-cut, sink, stope, end, rise, pitch, &c.
The work will contain upwards of fifty maps, plans, and sections.
Price, 10s.; by post, 10s. 6d.

THE NORTH SOMERSETSHIRE COAL FIELD.
By SEWARD W. BRICE, B.A.
OPINIONS OF THE PRESS.—"A work of great practical value to all interested
in the development of a great South England Coal Field."—*Mining Journal*.
"The task of estimating the quantity of coal still remaining in the North So-
mersetshire Coal Field is very difficult. Here we have a very troubled field of
Brice understands his subject, and his style of writing is clear and interesting."
—*Colliery Guardian*.
London: BARNES and LOTHIAN, 21, Paternoster-row; or post free from the
Gazette Office, Tiverton.

In the Court of the Vice-Warden of the Stannaries.

Stannaries of Cornwall.

IN RE SOUTH CONDURROW MINE.

TO BE SOLD, pursuant to an Order made in the Cause of
King v. McIntosh and Others, dated the 17th day of February, 1869, at
the Registrar's Office, at Truro, on Wednesday, the 21st day of April inst., at
Twelve o'clock at noon precisely, the
20 (6123rd) PARTS or SHARES of the defendant, John Ewen; the
15 (6123rd) PARTS or SHARES of the defendant, J. Fox; the
10 (6123rd) PARTS or SHARES of the defendant, F. Foster Bankhardt; the
10 (6123rd) PARTS or SHARES of the defendant, Frederick Sharp; the
10 (6123rd) PARTS or SHARES of the defendant, James Walton; the
5 (6123rd) PARTS or SHARES of the defendant, J. G. Smith; the
10 (6123rd) PARTS or SHARES of the defendant, Westney Fearon; the
5 (6123rd) PARTS or SHARES of the defendant, Jas. Josiah Shepherd; the
10 (6123rd) PARTS or SHARES of the defendant, J. A. Parker; the
5 (6123rd) PARTS or SHARES of the defendant, John Wilkinson; and the
5 (6123rd) PARTS or SHARES of the defendant, Wm. Holland respectively,
Of and in the said MINE.

JOSEPH ROBERTS, Solicitor, Truro
(Agent for Messrs. R. W. Childs and Batten, 25, Coleman-street,
London, Plaintiff's Solicitors).
Dated Registrar's Office, Truro, 8th April, 1869.

In the Court of the Vice-Warden of the Stannaries.

Stannaries of Cornwall.

IN THE MATTER OF THE COMPANIES ACT, 1862, and of the
WHEAL NORTH GRYLLS MINING COMPANY (LIMITED).—By direc-
tion of His Honour the Vice-Warden, Notice is hereby given, that on Thursday,
the 15th day of April instant, at Eleven o'clock in the forenoon, at the Regis-
trar's Office, Truro, in the county of Cornwall, this Court will PROCEED to
MAKE A CALL OF FOUR POUNDS PER SHARE on all the contributories of
the above-named company under class A.
All persons interested therein are entitled to attend at the time and place
aforesaid to offer objections to such call.
R. SMIRKE, Vice-Warden.
FREDERICK MARSHALL, Assistant Registrar of the said Court.
Dated Truro, April 2d, 1869.

COLCHARTON MINE, NEAR TAVISTOCK.

IMPORTANT SALE OF MINING MATERIALS.

MESSRS. WARD AND CHOWEN, Auctioneers, WILL SELL,
On Wednesday, April 21, the undermentioned articles, viz.:—
ONE 30 in. double acting rotary STEAM ENGINE, with heavy fly wheel.
ONE 10 ton BOILER, and outfit complete, with drawing machine attached,
the whole being nearly new.
Capstan and shears, 130 fms. 12 in. capstan rope, 65 fms. 10 in. pumps, 2 wind-
bore, 2 door pieces, 2 working barrels, 1 H piece, plunger pole, stuffing box
and gland, flange rings, bolts and bars, 40 fms. 10 in. shaft, rods, with strap-
ping plates, 200 CORNISH BOILERS, 6 ft. in diameter, and 26 and 30 ft.
in length; set of 9 in. PUMPS, complete; ditto 6 in. ditto, ditto; 42 iron trams
(3 ft. 2 in. gauge); wrought and cast scrap-iron; bellows, anvil, vice, smiths'
tools, &c., &c., too numerous to particularise.
Also, SEVEN POWERFUL DRAUGHT HORSES, in good condition; shaft
and leading harness, chaff cutter and gear, bean crusher and gear, corn bin,
ladder, bar, &c., &c.
Catalogues can be had on application to the Auctioneer ten days previous to
sale. Sale to commence at Twelve o'clock.
Auctioneer's Offices, Oxford-chambers, Oxford-street, Swansea.
Dated Uppaton, Milton Abbott, Devon, 7th April, 1869.

TO COLLIERY PROPRIETORS, AND OTHERS.

CALVERT COLLIERY,

THE COCKET, NEAR SWANSEA.

MR. JOHN M. LEEDER has been favoured with instructions to
SELL, BY PUBLIC AUCTION, by Messrs. T. A. WILLIAMS and Co., on
Thursday, April 15, 1869, all the valuable PLANT and MATERIALS at the
above colliery, comprising a very superior 28-horse power (low pressure) BEAM
ENGINE, with 200 CORNISH BOILERS, 6 ft. in diameter, and 26 and 30 ft.
in length; set of 9 in. PUMPS, complete; ditto 6 in. ditto, ditto; 42 iron trams
(3 ft. 2 in. gauge); wrought and cast scrap-iron; bellows, anvil, vice, smiths'
tools, &c., &c., too numerous to particularise.
Also, SEVEN POWERFUL DRAUGHT HORSES, in good condition; shaft
and leading harness, chaff cutter and gear, bean crusher and gear, corn bin,
ladder, bar, &c., &c.
Catalogues can be had on application to the Auctioneer ten days previous to
sale. Sale to commence at Twelve o'clock.
Auctioneer's Offices, Oxford-chambers, Oxford-street, Swansea.

GLAMORGANSHIRE.

SALE OF VALUABLE COLLIERIES, situated in the parishes of LLANWONNO
GILLYGARE, and LLANTRISSANT, in the county of GLAMORGAN,
known as
THE DARRANDDU, TROEDYRHIFWUCH, AND
CYMMER COLLIERIES.

MESSRS. DENNING, SMITH, AND CO., WILL SELL, BY
AUCTION, at the Royal Hotel, Cardiff, on Tuesday, the 27th day of April,
at One for Two o'clock precisely (unless previously disposed of by private con-
tract, of which due notice will be given), the above-mentioned

VALUABLE MINERAL PROPERTIES,
In the following or such other lots as may be agreed upon at the time of sale.
LOT 1.—All that COLLIERY, known by the name of the NEW DARRANDDU,
situated in the parish of LLANWONNO, in the county of GLAMORGAN, extend-
ing over an area of upwards of 350 acres, and held as follows:—
78a. 0r. 13p. under Pwl Howell Farm, are held under an Indenture of Lease,
dated 8th June, 1865, for a term of ten years which can be extended to another
five years.

122a. 1r. 17p. under Pennywall Farm, are held under an Indenture of Lease,
dated 12th July, 1865, for the term of 21 years, from 1st January, 1864.
The remainder—viz., 150a. 0r. 17p. under Blaenhenywe Farm—is held under
an Indenture of Lease, dated 12th September, 1865, for a term of 20 years, from
1st January, 1865.
This property forms the outlet for a further area of unleased mineral property
containing the Darranddu seam of coal.
The coal is very hard, and is especially adapted for locomotive and house pur-
poses, and it commands at all times a ready sale; in fact, it is the only colliery
that can now work the celebrated Darranddu vein.
The area of coal unworked is 220 acres, or thereabouts.
The New Darranddu Colliery is worked by a drift, and at present is equal to
an output of 4000 tons per month.
The drift is worked by a powerful engine, nearly new; the plant and machinery
are in good working order.

The coal is conveyed to the siding on the Taff Vale Railway over a self-acting
incline, and the colliery is in direct railway communication with the shipping
port of Cardiff, from which it is distant 14 miles.
LOT 2.—All that COLLIERY, known as the CYMMER LEVEL COLLIERY,
situated in the parish of LLANTRISSANT, in the county of GLAMORGAN, com-
prising an area of 155 acres of the Rhondda No. 2 seam, held under lease for a
term of 21 years from July 1st, 1858.

This colliery is worked by means of a shaft, but the unworked coal can be
obtained by means of a level, at a small outlay. It is in direct railway com-
munication with Cardiff, and is distant 16 miles.
The coal is well known as a superior coal for smelting and puddling iron, and
for general manufacturing purposes; it is also a good house coal.
The area of unworked coal is 80 acres, or thereabouts.
The present openings will admit of an output of 150 tons per day, the present
get averaging more than 100 tons per day.

Also, at the same time and place, will be sold about 6000 tons of COKE, in
stock at the colliery, belonging to the same proprietors.
There are 35 collieries, now rented by the lessees, within a few yards of the
colliery, for converting the small coal into coke, which can be rented by the
purchaser of this colliery.

LOT 3.—All that COLLIERY, known as the TROEDYRHIFWUCH, situated
in the parish of GILLYGARE, in the county of GLAMORGAN, containing the
Britchir seam and a seam below, extending over an area of 100 acres, or there-
abouts, held under a lease for a term of 99 years, from 6th October, 1859.
This colliery is worked by a level, and adjoins the Rhymney Railway, and is
in direct railway communication with the shipping ports of Cardiff and Newport.
It is distant 22 miles from Cardiff, and 16 from Newport.
The present proprietors are now working the Britchir vein, of which about
20 acres or thereabouts remain unworked.

The colliery is producing at the rate of 1500 tons per month, and the workings
are sufficiently open to admit of an output of 2500 tons per month.
The coal is particularly well adapted for smelting and puddling iron, &c.; it
is also a superior coking and gas coal, and may be worked at a very low cost.
All the above-mentioned collieries have good roofs, and very little timber is
required in working them. They are free from gas, and well ventilated.
The plant comprises engines, trams, weighing machines, and all the usual
and necessary appliances, including horses' stables, smiths' shops, &c.
The collieries and plans can be inspected on applying to the manager, Mr.
BEACHAM, Oakfield-villa, Pontypridd, Glamorganshire.
The leases can be seen at the offices of the solicitors, Messrs. FUSSELL and
PUGHARD, Bristol, of whom all further particulars may be obtained; or of
Messrs. DENNING, SMITH, and Co., Shannon-court, Bristol, and Commercial-
street, Newport, Monmouthshire.

CLEVELAND DISTRICT.

TO IRONMASTERS AND CAPITALISTS.

VALUABLE IRONSTONE PROPERTY FOR SALE.

TO BE SOLD, BY PRIVATE CONTRACT, A VALUABLE
IRONSTONE LEASEHOLD PROPERTY in the CLEVELAND DISTRICT,
near a shipping port, and intersected by two main lines of railway.
The mine is in full working order, and capable of a very large production; the
property includes COTTAGES, WORKSHOPS, PUMPING and WINDING EN-
GINES, PLANT, &c., &c. There is an excellent site at the mine for the
erection of furnaces and rolling mills. Iron of excellent quality can be made
on the spot at a lower price than in any other district, and from it large sup-
plies are now regularly sent to Scotland and Wales.
The property has to be sold in consequence of the death of the proprietor, but
the executors are willing to allow a portion of the purchase-money to remain
on security.
Further particulars may be obtained from Messrs. G. A. CRAWLEY, ARNOLD,
and GREEN, Solicitors, 20, Whitehall-place, London.

TO SPECULATORS.

SLATE QUARRIES FOR SALE IN THE ISLE OF MAN.

MR. RABY respectfully announces that he is instructed by the
Liquidator to SELL, BY AUCTION, on Wednesday, April 21, 1869, all
and singular the extensive SLATE QUARRIES belonging to the

MANX SLATE COMPANY (LIMITED).

Situate at GLENRUSHEN, in the parish of PATRICK, in the ISLE OF MAN.
The quarries are held under a lease from the Crown, dated 12th July, 1863, for
21 years, at a royalty of 1-16th, with a minimum royalty of £50 per annum, to
merge into the royalty when it exceeds that amount, with a dead rent of £1
per annum.

The grant is very extensive, containing an area of 6906 acres, all in the clay-
slate formation. The quarries have been wrought by means of galleries in the
side of the mountains, from which large quantities of roofing slate have been
raised and sold. They are supplied with all the necessities for carrying on an
extensive business, the PLANT consisting of railways, water-wheels, with slate-
sawing machine, tools of every kind required, quantities of railway bars, nu-
merous wagons, cart, stable utensils and horse gear, smithy implements,
contents of joiners' shops, furniture of offices and manager's room, saw-mill
machinery, balks, shaft heads and other timber, water-wheel (20 ft. in diameter,
3 ft. 3 in. face), boxes, trough (976 ft.), scrap iron, &c., &c.
N.B.—The whole will be offered as one lot, and, if not sold, will there and then
be put up in separate lots to suit the convenience of purchasers.

Capt. CAMERON, of Glenfaba House, near Peel, will show the property, and
give any further information required; also any information required, and ab-
stract of title, &c., will be given on application to SILAS EVANS, Esq., Liquidator,
at 23, Waring-street, Belfast.

Catalogues of plant may be had for a stamped envelope from the Auctioneer,
Douglas, Isle of Man.
The auction will take place at the office in the quarry, at 11 o'clock, prompt.

VALUABLE MINE SHARES FOR SALE.

MR. JOHN PERMEWAN WILL SELL, BY AUCTION, at the
Western Hotel, Penzance, on Thursday, the 22nd day of April inst., at
Three o'clock in the afternoon (subject to conditions to be then produced),
EIGHT (1-8th) SHARES of all that most valuable and productive TIN
MINE, called

WHEAL OWLES,

Situate in the parish of ST. JUST, near PENZANCE, CORNWALL, now in full
and vigorous working, with substantial buildings, and machinery of the most
effective kind.

The Mine is in all respects in excellent order, having been carried on for very
many years under able and judicious management.
Profits have been made to the amount of nearly £30,000, and a dividend of
Fifty Guineas per 80th share was declared on the 19th of February last; and,
with the present position and hopeful prospects of the tin market, the large
quantity of reserves on the Mine, and the extensive district of tin ground al-
ready opened and in view, no doubt large dividends will be paid for a consider-
able time.

The property is offered for sale in consequence of being trust estate, and each
share will form a separate lot; and is a peculiarly desirable, and a legitimate
and permanent mining investment, the present sale offers a most inviting op-
portunity.

Further particulars will be kindly furnished by Mr. RICHARD BOYNS, the
Purser, at the Mine; or may be obtained on application at the offices of Mr.
TRYTHALL, Solicitor, Penzance.—Dated April 7, 1869.

RARE OPPORTUNITY FOR INVESTMENT IN CORNISH MINING.

TO BE SOLD, BY PRIVATE CONTRACT, to a party or
company who will work the Mine efficiently, the WHOLE of the PLANT,
MACHINERY, &c., on

CARN GALVER MINE,

Situate in the parishes of MORVAH and ZENOR, and referred to in the Go-
vernment Survey Map as the Zenor and Morvah Mines, and which may be set
to work in a very few days, and at a very small cost.

The falling health of the lessee, purser, manager, and principal shareholder
is the sole reason for selling.

The PLANT on the Mine consist of a superior 30 in. double-acting STEAM-
ENGINE, with two bobs, for pumping and drawing, of ample power for con-
siderably increased development of the Mine; 150 fms. skip road; two cast-steel
skips; 150 fms. chain; tram wagons, tram road, with the necessary pitwork, &c.
The principal shaft is 130 fms., and there is a deep adit of 70 fms. from the
surface, which makes the water charges very light.

There is also on the Mine an account-house, and offices of nine rooms, stable,
and carriage shed, smithy, and other convenient outbuildings.
On the sett there are likewise powerful water stamps of 24 heads, burning-
house, Borlase's patent buddies, frames, &c., capable of dressing a considerable
quantity of tin.

For terms, and further particulars, apply to Mr. JOHN COULSON, Purser and
Manager, 38, Chapel-street, Penzance.

FOR SALE, BY PRIVATE TENDER, the LAPILLA PYRITES
MINE, Province of HUELVA (within one and a-half mile of the Tharsis
Railway), SPAIN.

This mine comprises FOUR PERTINENCIAS or SETTS of CUPREOUS SUL-
PHUR PYRITES of the finest quality, fully opened out, and capable of produc-
ing at present 1000 tons per month, which quantity can immediately be doubled
by further development of the ground.

The lode has been opened out on the "pillar and room" system of mining,
proving so far 200 yards in length, 48 yards wide, depth known 30 yards of
solid mineral.

The situation is well adapted for utilising any poor ores by the cementation
process.
Ten thousand tons of this pyrites have been supplied to Messrs. John Hutchin-
son and Co., Chemical Manufacturers, Widnes, Lancashire, who will testify to
the value of the mineral.

Further particulars may be obtained by application to SYDNEY YOUNG and
Co., 33, Gracechurch-street, London; JOHN RICHARDSON, 4, Clarence-building,
Manchester; or JAMES M. BURNUP, Newcastle-upon-Tyne, with one of whom
the tenders must be lodged on or before the 1st May, 1869.

TO CAPITALISTS AND OTHERS.

VALUABLE GREEN SLATE QUARRIES TO BE LET.

TO BE LET, BY TENDER, the WHOLE of those SPLENDID
GREEN SLATE QUARRIES, known as—

THE BUTTERMERE SLATE QUARRIES,

In CUMBERLAND, which comprise, amongst others, the HONISTER CRAGG
QUARRY, the EWE CRAGG QUARRY, and the DUBBS QUARRY.
These quarries are about equidistant from the towns of Cockermouth and
Keswick, whence there is railway communication to the sea and to all parts of
Great Britain.

The slate produced from the quarries is of a beautiful "sea-green" tint, and
its well-known durability renders it peculiarly suitable for the roofing of
churches, public buildings, and mansions. Valuable veins of slate and flags
exist in connection with those already worked, and may be included in the
tenders. The quantity capable of being raised is practically illimitable.

Tenders will be received for the whole of the quarries, or for any of them
separately. The owner does not bind himself to accept the highest or any
tender. To capitalists such an opportunity of investment is seldom offered,
and an early visit is solicited.

To view, apply to Mr. L. NEWBY, "The Castle," Cockermouth, where
specimens may also be seen. Further particulars may be obtained of the under-
signed, to whom tenders may be addressed until the 20th April next.
York, March, 1869. WILLIAM J. CLUTTON, Land Agent, York.

A FESTINIOG SLATE QUARRY ON SALE.

THE BWLCH-Y-SLATER SLATE QUARRY, situated in the
parish of FESTINIOG, and in the centre of that well-known slate
district, is NOW ON SALE, BY PRIVATE TREATY, owing to the death of
the late proprietor.

The quarry produces slates of first-class quality, of which there is apparently
an inexhaustible supply. It is provided with the requisite plant for being pro-
perly and profitably worked, and has already been worked to a profit, and is
parted with solely owing to the death of the proprietor. It is situated close to
the Portmadoc and Festiniog Railway.

For particulars, apply to Mrs. WILLIAMS, Bannarfawr, Dyffryn, Carnarvon.

NORTH WALES.

GREEN AND BLUE SLATE QUARRY.—The WHOLE or
ONE HALF of one of the FINEST QUARRIES in WALES FOR SALE.
Within 150 yards of a railway station, on a main line of railway, and within
1½ mile of a shipping port, accessible by the same line.

For price and particulars apply to Mr. THOMAS HARVEY, St. Clement's House,
St. Clement's-lane, London.
March 20, 1869.

NORTHAMPTONSHIRE IRON ORE.

TO BE LET, on royalty, ONE HUNDRED ACRES OF IRON
ORE, about seven miles from NORTHAMPTON. The IRONSTONE has
been proved, and is of the best quality, lying near to the surface.

It is most convenient for working, and of easy access from the Northampton
and Peterborough Railway. The nearest station to the property is Castle
Ashby.

For further particulars, apply to Messrs. THYNNE and THYNNE, 11, Great
George-street, Westminster, S.W.; or to Mr. SAMUEL BAILEY, Mining Engineer,
The Plick, Walsall.

FOR SALE, cheap, a 16-horse power PORTABLE STEAM
ENGINE, new, and with all recent improvements, guaranteed.
FIRST-CLASS PORTABLES, 5 to 25-horse power, on advantageous terms.
Prize Medals awarded—Hamburg, 1863; Paris, 1867, &c.

FOR SALE, EIGHT very superior SECONDHAND PORTABLE STEAM
ENGINES, 5 to 10-horse power, by eminent makers, in excellent condition.
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ESTABLISHED MORE THAN HALF A CENTURY.
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 and obtained a
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 as well as for
 ENGINEERING AND FOUNDRY WORK.
 have been purchased by
MESSRS. NICHOLLS, MATHEWS, AND CO.,
 BEDFORD IRONWORKS, TAVISTOCK.

For thirty years Messrs. NICHOLLS, MATHEWS, and Co., have been the proprietors of the latter works, but have now removed to the

TAVISTOCK FOUNDRY,

where, having the advantage of a never-failing stream of water of upwards of 200-horse power, they will have increased facilities for speedily and satisfactorily executing all orders entrusted to their care.

Manufacturers of STEAM ENGINES and BOILERS, on the newest principle; pump work, brass and iron; hammered iron shafts, of all sizes; miners' steel and iron tools.

N. M. AND CO. have had a LARGE EXPERIENCE in PREPARING MACHINERY for FOREIGN MINES, as well as selecting competent mechanics to erect the same.

N. M. AND CO. have always a LARGE STOCK of SECOND HAND MATERIALS.

DYNAMITE, OR NOBEL'S PATENT SAFETY BLASTING POWDER.

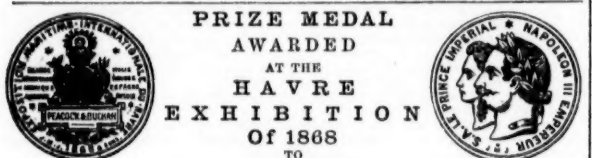
DYNAMITE is the SAFEST and most POWERFUL BLASTING COMPOUND in general use. Accidents are almost impossible, as it is only exploded by a strong percussion cap. It will not explode from a spark or concussion. If set fire to, it burns quietly and harmlessly away, without smoke or any explosion. Prepared in cartridges for mines and underground workings. Sold by—

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 Sole consignees in England from the Patentee and Manufacturer.

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 CHESTS, DOORS, AND STRONG ROOMS,
 With the progressive and recent improvements effected after half a century's experience, effectually guard against FIRE and BURGLARS.
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WILLIAM HANN AND SON beg to offer to SUPPLY COLLIERY OWNERS, and the public generally, with their
PATENT SAFETY LAMPS,

Which have been proved INEXPLOSIVE in the highest obtainable current of gas, of 48 ft. per second. No. 1 weighs 24 ozs., is simple in its construction, burns with a steady and nearly uniform flame in moderate currents, gives a good light, and is in every respect a practicable lamp. Price, 9s. each; if in quantities of a dozen or upwards, 8s. 6d. each, delivered free. Orders received by—
 WILLIAM HANN AND SON,
 HETTON COLLIERY, FENCE HOUSES.



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PEACOCK AND BUCHANAN'S
No. 3 COMPOSITION PAINT,
 Is superior to all other paints, and, being mixed ready for use, is cheaper. It also lasts longer, will wash without rubbing off, and can be applied by gardeners or labourers, requiring no oil, turpentine, or varnish. It is applicable for all kinds of house painting, greenhouses, vinerias, pit frames, &c.; also for carts, wagons, railway plant, agricultural implements, and mining purposes, &c., after a successful trial of nearly TWENTY YEARS.
 N.B.—It is ground in roller mills of polished granite and burnished steel by steam power, then passed through a brass wire bolting sieve, and is as fine as artists' colour, being equally applicable to the counting-house and drawing-room of the merchant, or the cabin of the yacht, steamer, or sailing ship—each tin forming a ready paint pot. It dries in a few hours with a beautiful brilliant surface, without stickiness or unpleasant smell; it is more economical, and stands longer than unground ordinary paint, mixed by hand. It has been opened after ten years, and found to be quite good and ready for use; and after a quantity on trial had been stowed away in the lockers of a ship during two voyages round the world, it was opened and used without requiring any oil, turpentine, or "thinners," to make it fit for working.
 As any person can lay it on, it is found to be most economical and useful to country gentlemen, and to the settler in India, Canada, Australia, New Zealand, &c., when living at a distance from a town—enabling every man to be his own painter. Danger from fire on board ship is also prevented. (See pamphlet, with testimonials, sent free on application.)

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THEY CHALLENGE COMPARISON.
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May be secured by a policy in the
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 An annual payment of 2s to 4s 6d. insures £100 at death, and an allowance at the rate of 4s per week for injury.

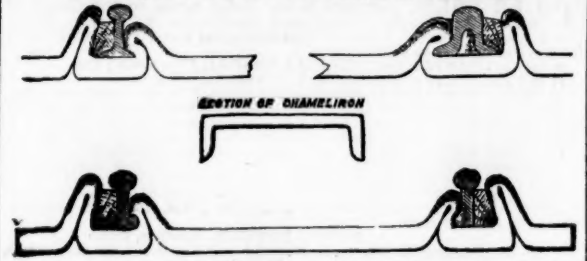
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 May be provided against by Insurance tickets for single or double journeys.
 For particulars, apply to the Clerks at the Railway Stations, or the Local Agents, or at the
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WILLIAM J. VIAN, Sec.

THE NEWCASTLE CHRONICLE AND NORTHERN COUNTIES ADVERTISER. (Established 1764.)
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CURE YOURSELF BY THE PATENT SELF-ADJUSTING CURATIVE AND ELECTRIC BELT.—Sufferers from spermatorrhoea, nervous debility, painful dreams, &c., can now cure themselves by the only guaranteed remedy in Europe, protected by Her Majesty's great seal. Free for one stamp by H. JAMES, Esq., Percy House, Bedford-square, London. N.B.—MEDICINE AND FEES SUPERSEDED. Reference to the leading Physicians of the day. A TEST GRATIS. SEND FOR DETAILS.

IMPORTANT TO COLLIERY OWNERS, AND THE PROPRIETORS OF IRONSTONE, LEAD, AND COPPER MINES, TRAMWAYS, &c.
THE PATENT WROUGHT-IRON SLEEPER,
 Combining a SLEEPER and TWO CHAIRS IN ONE PIECE.



The SLEEPER can be made to suit any required section of rail, either double-headed, flat-bottomed, or bridge, and the channel section of iron, of which the sleeper is made, can be manufactured of various breadths, and of weights varying from 6 lbs. to 20 lbs. per yard.

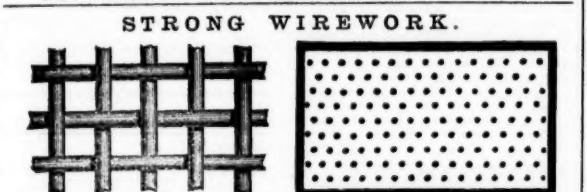
Among the advantages of the WROUGHT-IRON SLEEPER are—
 1.—The way can be laid more quickly, and with less manual labour.
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 5.—All the losses or damages arising from the ordinary system, from the way getting out of gauge, chairs or sleepers breaking, chair fastenings becoming loose and injuring the horses' feet, are avoided.

For further particulars, apply to the Sole Licensees,—
GEORGE HOPPER AND SON,
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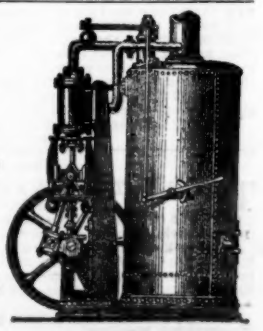
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ENGINES AND BOILERS COMBINED,

From 2 to 20-horse power. Small sizes usually ready for delivery.

PUMPING AND WINDING ENGINES

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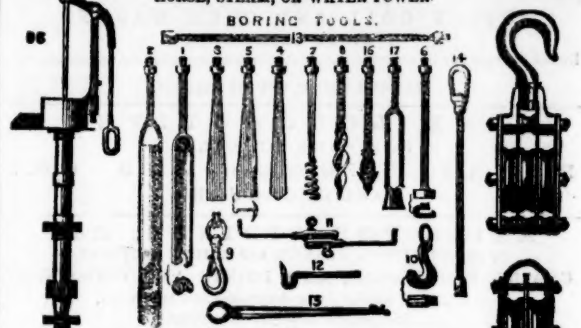
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ANY OF THE ABOVE CAN BE HAD ON HIRE

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Full information, Drawings, Price Lists, &c., relating to the above, and to Hydraulic Machinery of all descriptions—Crabs, Pulleys, Blocks, and Hoisting Tackle of superior manufacture—may be had on application.

STEAM ENGINES & ECONOMY OF FUEL.

B. DONKIN & CO.

Are now making their PATENT HORIZONTAL STEAM ENGINES, by which great ECONOMY OF FUEL is attained, the price being at the same time very moderate for this class of engine.

These engines have been accurately tested as to consumption of fuel, and have been sufficiently long at work to prove their durability and efficiency. Employers of steam power can have their engines easily tested by a simple and inexpensive apparatus, by which the comparative consumption of steam is ascertained, irrespective of the difficult questions of evaporative power of boilers and quality of fuel.

Apply to—
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F. N. GIBBORNE'S PATENT MECHANICAL BALANCE-WEIGHT SIGNALS FOR MINES, &c.

THESE SIGNALS supply a want long felt in giving INSTANT COMMUNICATION IN MINES at SEVERAL PLACES at the SAME TIME without the aid of electricity, but by a single rod or chain; so that a degree of safety is ensured hitherto unknown. The price is also very low, and the mechanism so simple that any ordinary mechanic could put it in order if out of adjustment. The same patent, as applied to ships, has received the approval of the Chief Engineer, Chatham Dockyard (vide Times, Aug. 13, 1868).

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Swan Rope Works.

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 MANUFACTURERS OF FLAT AND ROUND HEMP AND IRON and STEEL WIRE ROPES for MINING, RAILWAY, and SHIPPING PURPOSES. WIRE ROPE OF FIRST QUALITY WIRE, and the HIGHEST STANDARD OF STRENGTH.
MARTYN DENNIS AND CO., LIVERPOOL,
 Sole agents for Cornwall.



Fig. 86. Gwynne & Co.'s Improved Plunger Hand Pump. A very neat and extremely compact arrangement; will work for years without getting out of order. These pumps are peculiarly adapted for mines, for which great numbers have been supplied in situations where no other pump could be applied for want of space. They are equally adapted for use as feed-pumps, by driving them with strap from a rigger in place of the fly-wheel.



Fig. 84. Gwynne & Co.'s Double-Acting Pumping Engine. As supplied to the Admiralty Graving Docks, Malta, to lift from 200 to 2000 gallons per minute. The engine is of inverted pumps work vertical cylinder without valves or der construct-packing, and raise a ton of water. They will tolerate of gun-lift sand, mud, or metal, and the grit without choking, whole very and require only very strong and inexpensive repairs. compact.



Fig. 106. Gwynne & Co.'s Patent Combined Steam-Pump. As Applied to Railway Stations. The vertical boiler supplies the engine with steam, the pump discharging the water lifted from the well into the tank above, whence it may be drawn as occasion requires, for feeding locomotives, washing the carriages, as a fire-engine, &c. Estimates given.

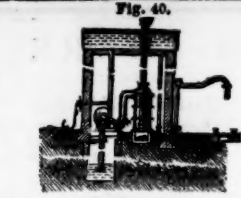


Fig. 40. Gwynne & Co.'s Patent Water Power Pumping Machinery. Extremely useful wherever water-power is available. The centrifugal pump is worked by gear from the water-wheel. Suitable for supplying country mansions with water. No expense when once fitted. Made of all powers.



Fig. 42. Gwynne & Co.'s Improved Bullock or Horse Power Pumping Machinery. Designed for Drainage and Irrigation Purposes. Suitable also for supplying the For situations where steam, water, or manions of noblemen or gentle- wind power are not available. Portable. Works continuously day and night without attention. Made out of order. From 1 to 6 horse power.

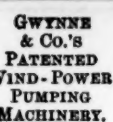


Fig. 94. Gwynne & Co.'s Improved Horizontal High-Pressure Steam-Engine. With or without expansion gear, for economical working. From 4 to 100 h.p. Gwynne & Co.'s Improved Deep Well Pump. Worked direct by steam-engine at the mouth of the well. This arrangement is invaluable in situations where, from peculiar circumstances, the centrifugal pump is inapplicable.



Fig. 144. Gwynne & Co.'s Improved Vertical Steam-Engine. Occupies little space, compact, safe, and easy to work. Made from the very best selected materials. Of all powers from 2 to 20 horse.

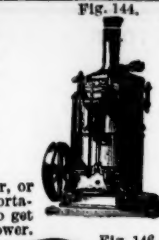


Fig. 146. Gwynne & Co.'s Improved Horizontal High-Pressure Steam-Engine. With or without expansion gear, for economical working. From 4 to 100 h.p. Gwynne & Co.'s Improved Deep Well Pump. Worked direct by steam-engine at the mouth of the well. This arrangement is invaluable in situations where, from peculiar circumstances, the centrifugal pump is inapplicable.

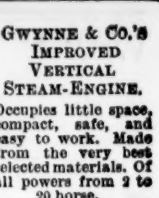


Fig. 88. Gwynne & Co.'s Improved Vertical Steam-Engine. Occupies little space, compact, safe, and easy to work. Made from the very best selected materials. Of all powers from 2 to 20 horse.

TWELVE PRIZE MEDALS, taken at the Exhibitions of the Principal Cities of the World, TESTIFY TO THE GREAT EXCELLENCE OF THIS MACHINERY.

Gwynne and Co. have recently effected a considerable reduction in their prices, being determined to supply not only the BEST but the CHEAPEST PUMPING MACHINERY in the WORLD.

TO PREVENT MISTAKES, PLEASE ADDRESS IN FULL—
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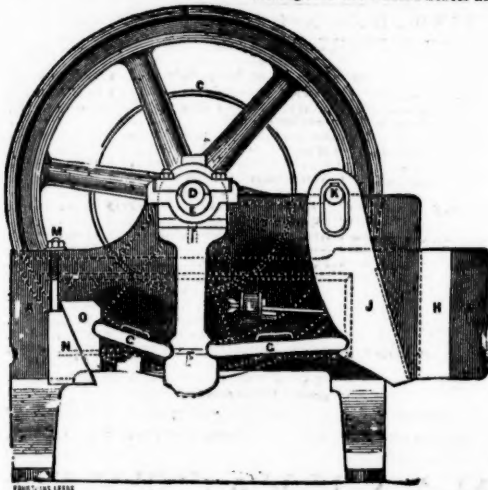
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OR ORE CRUSHING MACHINE,

FOR REDUCING TO SMALL FRAGMENTS ROCKS, ORES, AND MINERALS OF EVERY KIND.

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The Parys Mines Company, Parys Mines, near Bangor, June 6.—We have had one of your stone breakers in use during the last twelve months, and Captain Morcom reports most favourably as to its capabilities of crushing the materials to the required size, and its great economy in doing away with manual labour. For the Parys Mining Company, JAMES WILLIAMS.

H. R. Marsden, Esq. Eton Emery Works, Manchester.—We have used Blake's patent stone breaker made by you, for the last 12 months, crushing emery, &c., and it has given every satisfaction. Some time after starting the machine a piece of the movable jaw about 20 lbs. weight, chilled cast-iron, broke off, and was crushed in the jaws of the machine to the size fixed for crushing the emery. For H. R. Marsden, Esq. THOS. GOLDSWORTHY & SONS.

Alkali Works, near Wednesbury.—I at first thought the outlay too much for so simple an article, but now think it money well spent. WELSH GOLD MINING COMPANY, Dolgelly.—The stone breaker does its work admirably, crushing the hardest stones and quartz. WM. DANIEL.

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General Fremont's Mines, California.—The 15 by 7 in. machine effects a saving of the labour of about 30 men, or \$75 per day. The high estimation in which we hold your invention is shown by the fact that Mr. Park has just ordered a third machine for this estate. SILAS WILLIAMS.

For circulars and testimonials, apply to—

H. R. MARSDEN, SOHO FOUNDRY,

MEADOW LANE, LEEDS,

ONLY MAKER IN THE UNITED KINGDOM.

BLAKE'S PATENT STONE BREAKER,

In Chancery.

BLAKE v. ARCHER, NOVEMBER 12, 1867.

His Honour the Vice-Chancellor Wood having found a VERDICT in FAVOUR of the PLAINTIFFS in the above Cause, establishing the VALIDITY of BLAKE'S PATENT, and made a DECREE for an INJUNCTION to RESTRAIN the DEFENDANTS, Messrs. THOMAS ARCHER and SON, of Dunston Engine-Works, near Gateshead-on-Tyne, from INFRINGING such PATENT, and ordering them to pay to the Plaintiffs the costs of the Suit.

ALL PERSONS are hereby CAUTIONED against MANUFACTURING, SELLING, or USING any STONE BREAKERS similar to BLAKE'S, which have not been manufactured by the Plaintiffs. Application will forthwith be made to the Court of Chancery for INJUNCTIONS AGAINST ALL PERSONS who may be found INFRINGING BLAKE'S PATENT after this notice.

SOLE MAKER IN ENGLAND,

H. R. MARSDEN, SOHO FOUNDRY, MEADOW LANE, LEEDS.

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TITANIC CAST STEEL,

FOR BORERS, ROCK-DRILLING MACHINES, LATHE TOOLS, DRILLS, CHISELS, TAPS AND DIES, &c., &c. SOLID CAST-STEEL HAMMERS AND SLEDGES, FILES, &c.

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Where useful samples may be obtained.

PATENT FLEXIBLE TUBING,
AND BRATTICE CLOTH FOR MINES

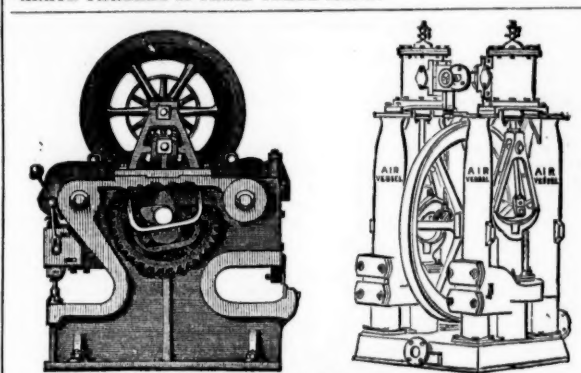
MANUFACTURED BY
ELLIS LEVER,

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BICKFORD'S PATENT SAFETY FUSE

Obtained the PRIZE MEDALS at the "ROYAL EXHIBITION" of 1851; at the "INTERNATIONAL EXHIBITION" of 1862, in London; at the "IMPERIAL EXHIBITION" held in Paris, in 1855; at the "INTERNATIONAL EXHIBITION," in Dublin, 1865; and at the "UNIVERSAL EXPOSITION," in Paris, 1867.

BICKFORD, SMITH, AND CO., of TUCKINGMILL, CORNWALL, MANUFACTURERS of PATENT SAFETY-FUSE, having been informed that the name of their firm has been attached to fuse not of their manufacture, beg to call the attention of the trade and public to the following announcement:—EVERY COIL of FUSE MANUFACTURED by them has TWO SEPARATE THREADS PASSING THROUGH the COLUMN of GUNPOWDER, and BICKFORD, SMITH, AND CO. CLAIM SUCH TWO SEPARATE THREADS as THEIR TRADE MARK.



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MAKER OF STEAM PUMPS, PORTABLE ENGINES, PLATE BENDING ROLLERS, BAR AND ANGLE IRON SHEARS, PUNCHING AND SHEARING MACHINES, PATENTEE OF THE DOUBLE CAM LEVER PUNCHING MACHINE, BAR SHEARS, AND RAIL PUNCHING MACHINES, EGERTON STREET IRON WORKS, HULME, MANCHESTER.

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By a special method of preparation, this leather is made solid, perfectly close in texture, and impermeable to water; it has, therefore, all the qualifications essential for pump buckets, and is the most durable material of which they can be made. It may be had of all dealers in leather, and of

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EXPENDITURE REDUCED BY EIGHTY PER CENT.

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ARE APPLICABLE to the TRANSPORT of MINERALS, AGRICULTURAL PRODUCE, and MERCHANDISE; cost less than any other road or way (commencing at £150 per mile), and can be carried over any country without more engineering work than a telegraph line. They are suited for BRANCH GOODS LINES in NEW COUNTRIES. The working cost is not one-third that of common roads. Three miles can be seen in operation. Apply to M. BEALE, 21, Gresham-street, Old Jewry, E.C.

BRAGANZA GOLD MINING COMPANY (LIMITED), IN THE PROVINCE OF MINAS GERAES, BRAZIL.

Capital £50,000, in 50,000 shares of £1 each.
Deposit for registered shares 2s. 6d. per share on application; 2s. 6d. on allotment.

Calls not to exceed 2s. 6d. per share, nor to be made at intervals of less than three months.
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The Braganza Company's Mine is situated (as shown by the map on the prospectus) about midway between the St. John del Rey Company's Mine, Morro Velho, and that of the Don Pedro North del Rey Company. In the same district are also the celebrated Gongo Soco (which has yielded gold to the value of £1,500,000 sterling) and the Rosa Grande and Taquaril Mines.

Captain William Williams, who resided within two miles of the Braganza Company's Mine for ten years, and knows it well, reports of it—"In all my travels through South America and Australia I never saw so large blocks of quartz from any lode so rich in gold as those from this mine."

Six bags of ore have been assayed by Messrs. Johnson, Matthey, and Co., and yielded rather over 22 ozs. of gold to the ton of ore. The ores of the other profitable mines in the district yield, on the average, only 1 oz. of gold per ton, out of which it is well known very large dividends are paid.

The mine stands high and healthy, and being an open cutting, no pumping machinery will be required. Much preliminary work has been already done, and returns may be made as soon as the reducing apparatus is erected. There is abundance of labour, provisions, water, and pasture.

The total capital required to purchase and work the mine on a moderate scale is estimated at only £26,000. It is calculated that the net yearly profit from working on that scale (reckoning on the quartz yielding only 1 oz., and the alluvial soil only 1/4 oz., of gold per ton) will amount to £28,256, or more than 100 per cent. per annum on the capital employed. More extended workings, or a higher average produce of gold, would yield even a larger profit. Prospectuses, with maps and full particulars, and forms of application for shares, may be obtained of the Secretary or Brokers, as above.

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THE GREAT NORTH-WEST COMPANY (REGISTERED), BALLARAT, VICTORIA.

Capital £250,000, in 25,000 shares of £10 each, and 15,000 shares of £10 each, £5 per share to be paid on allotment, on which scrip will be given.

A list of credentials from all the principal banking establishments in the colony to their offices in London, and also from a number of other persons of influence and standing there, furnished to the agent on his leaving Victoria for London, besides copies of various reports made by Government surveyors and others who are well acquainted with and have personally inspected the properties, together with certified plans of both properties, and prospectuses, with forms of application for shares, may be had by applying at the temporary offices, Dickers, Australian and London Mining and General Agency, 4, Royal Exchange-avenue, E.C.

CHANGE OF NAME.
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CHIEF ENGINEER—MR. LAVINGTON E. FLETCHER, C.E.

At the last ANNUAL MEETING, held in the Town Hall, Manchester, on Tuesday, March the 9th (WILLIAM FAIRBAIRN, Esq., L.D., &c., in the chair), the title of the association was modified as follows:—"THE MANCHESTER STEAM-BOILER USERS' ASSOCIATION FOR THE PREVENTION OF STEAM-BOILER EXPLOSIONS, AND FOR THE ATTAINMENT OF ECONOMY IN THE APPLICATION OF STEAM," so that it may be cited in brief—

THE MANCHESTER STEAM-BOILER ASSOCIATION.

This association undertakes the periodical inspection of steam-boilers, with a view of preventing explosions, and gives a pecuniary guarantee to the amount of £500 on each approved boiler, so that in the event of explosion, whether it arise from collapse of the furnace tubes, rupture of the shell, or failure of any part of the boiler whatever, all damage done thereby, other than by fire, will be made good to the extent of £500.

The association also assists its members by advice on the construction of new boilers, and other matters relating to economy and safety in the use of steam.

TERMS: ONE GUINEA AND A HALF PER ANNUM PER BOILER within 40 miles of Manchester, accessible by rail. Beyond that distance, special arrangements made according to circumstances.

TWO GUINEAS PER ANNUM FOR CORRESPONDING MEMBERS, who receive copies of the Association's Monthly Report, and have the opportunity of consulting the Chief Engineer.
ROBERT TONGE, Secretary.
41, Corporation-street, Manchester, March, 1869.

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Policies will be issued without respect to age at a uniform quarterly premium of 1s.

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Apply, for further information, to—PERCIVAL HINDMARSH, Secretary.

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BRITISH DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Total divs.	Per share.	Last paid.
1500	Alderley Edge, c. Cheshire	10 0 0	..	..	10 6 8	0 5 0	Jan. 1869
200	Botalack, c. St. Just	91 5 0	250	240 250	528 5 0	10 0 0	Feb. 1869
4000	Brookwood, c. Buckfastleigh	1 11 0	..	..	0 12 6	0 2 6	Aug. 1868
1000	Brooklyn, c. Cardigan	12 0 0	..	..	10 17 0	0 10 0	Jan. 1869
5094	Bwlch Consols, s-l, Cardigan	4 0 0	..	2 1/2 3	0 5 0	0 5 0	June 1868
6400	Cashwell, c. Cumberland	2 10 0	..	..	0 3 0	0 1 6	Aug. 1868
916	Carlisle, s-l, Newlyn	15 5 7	..	..	15 15 0	0 10 0	Jan. 1869
1280	Chanticleer, c. Flint	0 7 8	..	..	0 1 0	0 0 6	Nov. 1868
2450	Cook's Kitchen, c. Illogan	19 14 9	17	10 1/2 17 1/2	1 17 0	0 5 0	Jan. 1869
509	Creechbrow and Penkell, c. t	..	..	..	2 5 0	1 5 0	April 1868
867	Cwm Eryn, c. Cardiganshire	7 10 0	..	..	30 3 0	0 10 0	April 1869
128	Cwmystwith, c. Cardiganshire	60 0 0	..	..	285 10 0	2 0 0	Feb. 1869
280	Dewerth Mines, s-l, Durham	300 0 0	..	..	177 0 0	2 10 0	July 1868
1024	Diving Gt. Consols, c. Tavistock	1 0 0	310	..	1128 0 0	4 0 0	Mar. 1869
656	Devon Dong, c. Gwilt	49 14 6	25	..	3 0 0	1 10 0	Mar. 1869
358	Dolcoath, c. t, Camborne	128 17 6	500	470 500	874 10 0	10 0 0	Feb. 1869
6144	East Caradon, c. St. Cleer	2 14 6	..	6 1/2 7 1/2	14 11 6	0 2 0	July 1867
300	East Darren, c. Cardiganshire	32 0 0	85	..	49 10 0	1 10 0	Feb. 1869
128	East Pool, c. Pool, Illogan	24 5 0	..	..	457 10 0	5 0 0	Mar. 1869
1906	East Wheel Lovell, c. Wendron	3 9 0	9 1/2	9 1/2	4 11 6	0 10 0	Jan. 1869
2800	Foxdale, c. t, Isle of Man	25 0 0	..	..	73 0 0	0 10 0	April 1869
5000	Frank Mills, c. Christow	3 18 6	3 1/2	3 1/2 3 1/2	3 9 6	0 4 0	Feb. 1869
3520	Gawton, c. Tavistock	3 10 6	..	..	0 3 0	0 3 0	Jan. 1868
15000	Great Laxey, c. Isle of Man	4 0 0	19 1/2	19 20	10 5 0	0 10 0	Mar. 1869
3000	Great Northern Manganese	5 0 0	..	..	..	5 p.c.	Feb. 1869
5008	Great Wheel Vor, c. t, Helston	40 0 0	17 1/2	17 18	14 1 0	0 5 0	Mar. 1869
1024	Herodsfoot, c. near Liskeard	8 10 0	40	44 46	49 10 0	1 10 0	Feb. 1869
165	Illogan, c. t, St. Just	10 8 1	..	..	1099 0 0	1 0 0	Jan. 1869
400	Lisburne, c. Cardiganshire	18 15 0	..	..	515 0 0	3 0 0	Mar. 1869
3000	Mace-y-Safu, c. Flint	20 0 0	..	..	4 0 0	0 0 5	Oct. 1868
9000	Marke Valley, c. Cardigan	4 10 6	9 1/2	8 1/2 9	4 19 0	0 5 0	Jan. 1869
3000	Minera Boundary, c. Wrexham	1 0 0	..	..	0 13 0	0 3 0	Mar. 1866
1800	Minera Mining Co., c. Wrexham	25 0 0	..	..	248 13 6	5 0 0	Feb. 1869
20000	Mining Co. of Ireland, c. t, cl.	7 0 0	11 1/2	..	..	9 p.c.	July 1868
40000	Mynydd Iron Ore	3 5 0	..	..	0 11 6	0 3 0	Feb. 1869
2000	North Levant, c. t, St. Just	10 12 0	12	11 1/2 12	0 8 0	0 5 0	Mar. 1869
3000	Penallt, c. t, St. Agnes	3 0 0	6 1/2	..	162 10 0	2 10 0	Aug. 1868
5000	Penallt, c. t, St. Agnes	3 0 0	6 1/2	..	0 2 6	0 2 6	Jan. 1869
12800	Prince of Wales, c. Calstock	0 12 6	1 1/2	2 1/2 2 1/2	0 8 6	0 1 0	Nov. 1868
1120	Providence, c. t, Uny Lelant	10 6 7	41	40 42	88 2 6	1 10 0	Mar. 1869
612	South Caradon, c. St. Cleer	1 5 0	..	..	612 10 0	5 0 0	Mar. 1869
3000	South Darren, c. Cardigan	3 6 6	..	..	0 14 6	0 1 6	Feb. 1869
937	South Wh. Croft, c. Illogan	24 10 0	13 1/2	13 13 1/2	1 10 0	0 10 0	Feb. 1869
496	So. Wh. Frances, c. Illog. t	18 18 9	..	15 17	874 13 6	1 0 0	Mar. 1869
508	Summer Hill, c. t, Pool	3 18 6	..	19 20	20 11 0	0 10 0	Mar. 1869
12800	Tincroft, c. t, Pool, Illogan	11 10 0	22	21 22	8 0 0	0 10 0	Jan. 1869
2000	Trumpet Cons., c. t, Helston	11 10 0	22	21 22	8 0 0	0 10 0	Jan. 1869
12000	Van, c. t, Llandudno	4 5 0	25	25 26	..	..	..
3000	W. Chiverton, c. t, Perranzabuloe	10 0 0	52	51 52	33 7 6	2 0 0	Feb. 1869
5000	West Godolphin, c. t, Breage	0 1 0	..	..	0 20 0	0 2 0	Dec. 1867
400	W. Wheel Seton, c. Camborne	47 0 0	207 1/2	200 210	622 0 0	6 0 0	Feb. 1869
512	Wheel Basset, c. Illogan	5 2 6	75	..	632 10 0	1 0 0	June 1868
1024	Wheel Friendship, c. Tavistock	20 0 0	..	..	300 10 0	0 10 0	Nov. 1868
612	Wheel Jane, s-l, Kea	10 15 0	45	42 1/2 47 1/2	3 13 0	0 2 0	Feb. 1869
4295	Wheel Killy, c. t, St. Agnes	8 0 0	18	16 17 1/2	67 15 0	0 17 6	Mar. 1869
1024	Wheel Mary, c. t, Menheniot	8 0 0	18	16 17 1/2	403 3 0	52 10 0	Feb. 1869
80	Wheel Owles, c. St. Just	70 0 0	..	..	254 15 0	2 0 0	Feb. 1868
396	Wheel Seton, c. t, Camborne	58 10 0	75	70 75	1 0 0	0 10 0	Dec. 1867
3000	Whitwell Lead, Clitheroe	0 5 0	..	..	49 6 0	0 5 0	Mar. 1869
17000	Wicklow, c. t, Wicklow	2 10 0	..	..	..	..	..

FOREIGN DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Total divs.	Per share.	Last paid.
25000	Alamillos, c. Spain	2 0 0	2	1 1/2 2	0 6 6	0 2 0	Mar. 1869
20000	Australian, c. South Australia	7 7 8	..	..	0 16 0	0 6 0	Aug. 1868
15000	Cape Copper Mining	7 0 0	13	..	3 17 6	0 15 0	Nov. 1868
30000	Central American Association	1 10 0	..	..	..	..	..
76162	Don Pedro North del Rey	0 14 0	4 1/2	4 1/2 4 1/2	1 0 8	0 6 0	Mar. 1869
70000	English and Australian, c. t	2 10 0	..	..	..	0 9 6	Feb. 1869
25000	Gen. Mining, c. Nova Scotia	2 0 0	..	1 1/2 2 1/2	1 14 0	0 3 0	Mar. 1869
10000	Gonessa, c. Sardinia	20 0 0	..	..	10 per cent.	..	Aug. 1868
6500	Kapunda Mining Co., c. t, Australia	1 0 0	..	..	0 1 0	0 6 0	Nov. 1868
12500	Llaneros, c. Spain	3 0 0	3	2 1/2 3	11 18 4	0 3 4	Mar. 1869
50000	Manuelito, c. Chile	3 0 0	1	..	10 per cent.	..	Yearly
6000	Peel River Land and Mineral	100 0 0	..	..	..	..	..
10000	Pontebaud, c. t, France	20 0 0	13	11 13	5 6 2	0 19 7	Dec. 1868
100000	Port Phillip, c. t, Clunest	1 0 0	1 1/2	1 1/2 1 1/2	1 3 6	0 1 6	Jan. 1869
120000	Scottish Australian Min. Co. t	1 0 0	1	1 1/2 1 1/2	10 per cent.	..	Nov. 1868
11000	St. John del Rey, Brazil	15 0 0	18 1/2	17 17 1/2	81 10 0	5 0 0	Dec. 1867
4000	Swedish Sulphur Ore	6 0 0	8 1/2	8 1/2	2 2 6	0 12 0	Nov. 1868
12500	Vancouver Coal Mining	6 0 0	8 1/2	8 1/2	0 9 7	0 7 0	July 1868
50000	Victoria (London) £25000 £1 pd., £25000 12s. 6d. pd.]	1 0 0	..	..	0 19 6	0 2 6	May 1866
40000	West Canada Mining Co.	1 0 0	..	..	..	..	..

NON-DIVIDEND FOREIGN MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
50000	Anglo-Argentine, s, Argentine Republic	1 0 0	..	..	..
100000	Anglo-Brazilian, g, t	0 10 0	..	..	Nov. 1866
12500	Anglo-Italian, g, t	0 10 0	..	3/4. 3/4	Jan. 1868
20000	Australian United, g	1 0 0	..	..	Mar. 1868
2464	Burra Burra, c, South Australia†	5 0 0	..	..	..
20000	Capula, s, Mexico†	1 17 6	..	..	May 1868
30000	Chontales, g, s, Nicaragua†	5 0 0	..	1 1/2. 1 1/2	Mar. 1868
12000	Cobre Copper Company, c, Cuba†	45 10 0	..	..	Jan. 1868
10000	Copago Mining Company, Chile†	10 0 0	..	..	..
10000	Copago Smelter, Chile†	10 0 0	..	..	April 1866
200	Copper Mines, c, South Australia†	150 75 0	pd.	..	Nov. 1866
10000	El Estero Silver Mining and Reduction Company*	5 0 0	..	..	Nov. 1866
40000	Fortune Copper Mining Co. of Western Australia	2 0 0	..	..	Fully pd.
50000	Frontino and Bolivia, g, New Granada†	1 17 6	1	..19s. 20s.	May 1868
150000	General Brazilian*	0 10 0	..	3/4. 14s. 16s.	Feb. 1869
80000	Great Northern, c, South Australia†	1 11 6	..	..	Sept. 1867
50000	Javali, g, Nicaragua	2 0 0	..	..	Jan. 1869
7927	Lusitania (Portugal)†	2 15 0	..	..	Dec. 1866
83640	Mariquita, g, s, New Granada	1 0 0	..	..	Feb. 1868
12500	Nerbudda Coal and Iron, India†	6 0 0	..	..	Dec. 1867
51000	New Quebrada, c, Venezuela†	4 0 0	..	..	..
10000	Osceola United, g, Italy*	2 17 6	1 1/2	..	..
10178	Rhenish Consolidated, l, [6000 £5 pd., 4178 £2 10s. pd.]	..	..	..	May 1866
100000	Rosa Grande, g, Brazil†	0 14 0	..	1 1/2.	June 1867
15000	San Pedro del Monte, s, Mexico*	4 0 0	..	..	Sept. 1866
10000	San Roque, l, Spain	5 0 0	..	..	Fully pd.
50000	Sao Vicente, Brazil†	0 4 0	..	3/4. 5s. 7s.	Oct. 1868
100000	Taquaril, g, Brazil†	0 7 6	..	3/4. 11s. 13s.	Oct. 1868
43174	United Mexican, s, Mexico†*	28 5 2	2	.. 1 1/2	May 1868
30000	Val Antioria, g, Italy*	1 2 6	..	..	..
6000	Val Sansam, s, c, l, Italy†	8 0 0	..	..	Aug. 1868
4000	Val Sansam, s, c, l, Italy*	0 0 0	..	..	Fully pd.
20000	Washoe, c, Nevada	5 0 0	..	..	Fully pd.
80000	Worthing, c, South Australia†	1 0 0	..	3/4. 3/4 3/4	Fully pd.
75000	Yorke Peninsula, South Australia	1 0 0	..	..	Fully pd.
45000	Yudanamutana, c, South Australia††	3 0 0	..	1 1/2. 1 1/2 1 1/2	Fully pd.